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PSYCHISM.

PSYCHISM

Analysis of Things Existing

ESSAYS

BY

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INTRODUCTION.

Under the cover of scientific conservatism it is the general tendency of men who have attained a certain position in universities and scientific societies to bar the way to any matters too strikingly diverging—according to their views—from the ordinary trend of observation. This is especially true of psychic phenomena. Although the latter may safely be placed at the head of the most interesting subjects soliciting man's attention, yet they do not appear to have attained the required degree of respectability for their introduction to the scientific societies and journals where the gentlemen alluded to, exercise their pontifical functions.

For this reason the investigator who is convinced of having matters of interest to communicate, must, in order to force his way to the attention of the public—general and special—resort to the publication of a book, wherein he may at liberty, on his own respon-

sibility and to the full extent of his thought, if he so chooses, state aught which he considers worth writing. This is precisely the *raison d'être* of the present book.

In 1886 the author (who then held an official position in one of the highest scientific Government institutions in Paris) published the result of his first researches in Experimental Psychology (*Spiritisme ou Fakirisme occidental*). The book, which had a fair amount of success among the general public, was not, we must say, received as well in the so-called scientific spheres. Its author's reward was the general disfavor with which he met among his superiors and colleagues. Since then, opinions have changed, ideas progressed, and the same writer has had the pleasure of seeing his work quoted, even by former opponents, and so to say, become classical.

Encouraged by this result—which he had foreseen—the author, who refrained for some time from expressing opinions or theories relative to the psychic *facts* which he had been, and is still, observing daily, has gone a step further and writes on that which, in his opinion, may be the *rationale* of these phenomena. He sees in the latter the possible explanation of the Universe, and the Life which animates

it. It is the summary of his reflections and investigations of fifteen years, through hypnotic subjects and mediums, which is now submitted to the appreciation of the English speaking public (1).

* * *

Most of the pages found in this volume have been written twelve years before their publication in English. This delay was due to personal reasons, and the manuscript quietly remained waiting until the author deemed the time auspicious to put it in print.

When these essays were written, the subject of which they treat was still strongly contested; indeed, it is yet, but in a much lesser degree, and the time is fast approaching when a lack of knowledge of its tenor will be considered as gross ignorance. It is the opinion of the author that this is a matter with which, through force of circumstances, every one will be familiar before the twentieth century attains its period of adolescence. A great many scientists are cognizant of the question; the clergy becomes more and more interested in it, and several have held dissertations on it

(1) The subject has been treated in French, under the title of *Analyse des Choses*, by the author.

from the pulpit. Now, it must be stated that psychical matters are of such a nature that they may be compared to a set of powerful cog-wheels in motion; once the fingers are caught in the teeth, the whole body is drawn in. The movement cannot be stopped at present, and scientists, clergymen, and philosophers of all schools will soon be bound to come, *volens nolens*, to an understanding with regard to psychic phenomena. It is true that the question would be advanced some twenty-five years or more if it had not been for the numerous frauds which have kept many experimenters from investigating and publishing the results of their researches. But it behooves us to sift the grain from the chaff, *i. e.*, the genuine from the spurious, in order to bring truth from its hidden recesses.

It has been said above, that in psychic phenomena a possible explanation of the Universe might be foreseen. Is this not too rash an assertion, and is not the expression of this expectation by far too unscientific? We think not, for the aim of science, as pointed out by Huxley and other savants of his school, is nothing short of a complete explanation of the Universe, although they admit the goal

beyond the reach of human entendement limited to its present attributes.

It may seem preposterous to bring the name of the god-father of Agnosticism in the defense of a theory apparently so distant from that doctrine. Again, we deny it: Agnosticism and Evolutionism are two divinities ordinarily worshipped on the same altar, and the agnostic must be ready to see his store of admissions constantly modified, enlarged, according to the evolution of knowledge. Agnosticism, in fact, is but a state of mind in which convictions are based on knowledge and not on faith. This is the ground on which we claim to stand. Of course, imagination is a faculty through which we are entitled to build a temporary scaffolding for a working hypothesis; still, the latter must be erected on solid ground. Again, this is what we claim to be doing.

In reality, neither Huxley (2) nor Tyndall (3) were consistent with their teachings in denying the existence of, and scorning psychic phenomena, a subject which they had not in-

(2) *Science and Hebrew Tradition*, p. 12.

(3) *Science and the Spirits*. (Fragments of Science, Vol. I.) Belfast Address. The Rev. J. Martineau and the Belfast Address. (Fragments of Science, Vol. II.)

vestigated. They failed to steer their bark according to their own beacon. They did not hold to that which Huxley termed "that scientific *ars artium*, the art of saying "I don't know" (4), and the *facts* are the reefs on which the inconsistency of their attitude was wrecked; *for facts exist*.

"Psychism" is a relatively new branch of science, which consists in the study of the manifestations of the soul ($\psi\upsilon\chi\acute{\eta}$) before and after death. We wrote "relatively new branch of science," for we have never had the pretention of presenting a new *ism*. As Mephistopheles says: "He but a fool or ignoramus who fancies himself the originator of an idea."

This book has no pretence to be didactic; it may be considered as a collection of thoughts and reflections, in short, essays arranged in chapters. The only aim of the author, in publishing it, is to promulgate the cause of good and to be instrumental in upholding a scientific truth which, in the light of his experience as physician and philosopher, he considers as the most capable of elevating the nature of man.

(4) Geological Contemporaneity.

PART I.

VIEWS OF THINGS IN GENERAL.

CHAPTER I.

SUMMARY: The path to be followed in the study of things.—Study of the Macrocosm.—Periodical Catclysms.—Movements of waters and ice from one to the other hemisphere.—Deluges.—A comparison between the Northern and the Southern Hemispheres.—Alternative layers of marine fossils separated by fossils of the aerial existence.—What is matter?—The unextended atom.—Energy.—The law of indestructibility of matter.—Atoms are fluid elements.—Penetrability of matter.—The prodigiously energetic motions of molecules.—Atoms.—Vortices.—The Universe tends towards absolute repose.—According to a number of modern scientists the philosophical analysis of matter, assisted by experiments, shows that it is but compacted energy in a transitory form.—The most powerful form of illusion is termed reality.

This book bears as its title, "Psychism.—Analysis of Things Existing." It is a heading passing great, encompassing fields most vast, and may appear pretentious for so small a volume; but we hope to justify it, and will en-

deavor to sketch clearly, yet succinctly, an analysis of our subject—the Universe—of which we form a part.

Let him who all unmindful of the great problems of life and death, whose soul has never risen above common places, pursue the even tenor of his way; this book is not for him, nor yet has it been written for those who place the boundary of science according to the line of their own limited knowledge; but for the few who ask of themselves: "Why are we living on this planet, and by what force have we been brought to it?" We beg of the latter to concentrate thought, to isolate it so far as possible from external objects, to abmaterialize it, as it were, in order to pursue the flight we are about to take.

Our itinerary will be as follows: Casting aside the power of attraction which binds us to Earth, and, while leaving our planet, we will, with the mind's eye, make a cursory examination of its surface. First, we will take a portion of the substance of which it is formed

and endeavor to discern its component parts. In a word, we will start from the atom and with gigantic strides scale the immensity which leads to the Macrocosm. Returning to our planetisphere, we will seek the epitome of the Universe, or so-called Microcosm, and, in studying its anatomy and physiology, compare it with that of its model. While making our titanic excursion through the boundless realms of Ether, we shall pause for a moment and seek the third principle, the true Being, which, with Matter and Energy, constitutes the animated Universe. This principle in man, which is the proof of his independence and continuance outside of matter, will be the chief object of our work.

* * *

We are aware that certain scientists hold that each earthly period of twenty-five thousand and some hundred years, periods which are determined by the astronomical phenomenon known as the precession of the equinoxes, witnesses the most fearful cataclysms. They base

their belief partly upon the shape of the earth and oceans, as well as upon certain traditions of engulfed continents. These occurrences, as we may see in our soarings through space, interest only the races inhabiting this earth, for we well understand they are totally unperceived by even our nearest planetary neighbors, the inhabitants of Mars, unless indeed their knowledge of optical science is more advanced than ours. The manner in which these cataclysms are supposed to occur is as follows: by reason of the change of inclination of the polar axis, the earth presents itself before its great magnet, the Sun, so as to displace its own center of attraction, which then passes from one side of the terrestrial equator to the other hemisphere. This results in the disturbance of waters which, by reason of their fluidity, have a natural tendency to run towards the point to which they are most strongly attracted, in an all overpowering tidal wave.

If this were all there might not follow such terrible devastation. As the level of the waters diminishes at the uplifted pole as well as else-

where, the huge ice-cap which covers it is rent, being no longer upheld by the waters. These accumulations of ice at either the arctic or antarctic pole, which may tower miles in height, are overthrown owing to the withdrawal of the waters, and a stupendous breaking up follows; blocks of ice as large as empires, as colossal as so many Himalayas, tumble over each other, fall and drive away the waters rushing with them, tearing away continents, and carrying along masses of boulders which man later on calls erratic. The salt sea submerges everything except, perhaps, a few lofty summits and plateaux. And after, when the great silence has become established over ancient continents, buried at the bottom of the briny seas with all that they bear, new lands spring up, muddy, covered with a salty ooze and foreign weeds, like unto hideous marine monsters, which suddenly emerge from the bosom of troubled floods and show themselves in full sight of the awe-stricken skies.

Thus these new lands present themselves to those who have survived the general fate, the

memory of which will be traditional and handed down, through stories of deluges that one may find in all sacred books of ancient religions.

Cast your eye upon the earthly globe, say the partisans of this diluvian theory, and behold how greatly the southern differs from the northern hemisphere. In the latter you see nought but lands, while toward the south waters are predominant; they are accumulated thither. High plateaux and mountain tops under the form of islands are seen there in numbers. Moreover, all the continents, both Americas, Africa and the great Indo-Chinese peninsulas end in a point toward the south pole to which the waters have retired. And the Atlantis, which Plato illustrated, the remembrance of which has been carried along through ages, what has become of it if it has not, like other continents, been swallowed up by the sea? What, add they, do these alternating and superposed layers of marine and telluric fossils which we find in our fields and even on the mountain tops prove if not that the sun once shone at the same point in successive æons upon life-teeming ocean and continent?

Thus is briefly stated, the catastrophe theory of cataclysms through which some geological changes have been explained. However, we know that modern science, without denying the possibility and even the existence of local or partial catastrophism, holds that it must be admitted that for ages the changes, traces of which are observed in the crust of the earth, have taken place much in the same manner as we now witness, *i. e.*, slowly, insensibly but continuously. (Evolutionism.) Reality, at first though less impressive, nevertheless is still fuller of grandeur, if we consider the stupendous amount of time required for the evolution of such extensive phenomena (6).

But let us put aside this subject, which is of lesser import from our standpoint, and, as

(6) In modern times Kant, in his *Sämmtliche Werke* (1775), was the first to call attention to the fact that sea and land had alternately occupied the same points of earth.

As Huxley (*Discourses Biological and Geological*) points out, Kant was not only a great metaphysician, but also a scientist of vast erudition. Geologically, he was the first to hold the theory of evolution.

thought now floats, as it were, above the terrestrial surface, we have nothing to fear from the great periodical diluvian cataclysms; for these cannot trouble us in our search for the Absolute, and we can well understand how Archimedes, fearless and withdrawn by thought from the paltry things which surrounded him, allowed himself to be slain by a brutish Roman soldier.

Let us then begin our study of the Macrocosm. Philosophical analysis and the atomic theory, as well as that of equivalents, having been deduced from the determined and constant proportions which bodies bear among themselves in their combinations, lead us to consider Matter as being composed of exceedingly minute elements, grouped together in various ways. These elements are called molecules. But analysis goes further; these molecules, however small we may imagine them, are themselves made up of a number of other indivisible elements, as is indicated by their name; these elements of the molecules are called atoms. If

to the question, "What is matter?" we answer that it is something which we can touch and see, but which is formed of parts that have materially no existence. We believe many would be astonished at our reply. And yet, this is the definition given and sustained by men most eminent, who are upholders of the theory known as that of the unextended atom.

We are not positive whether this subject has been discussed by the ancient philosophers of Greece, but it is found, symbolically expressed, in the Hindoo philosophies. Be that as it may, we know that it was advanced about the middle of the last century by Father Boscowitch and by such scientists as Ampère, Faraday, Cauchy and others. Among the philosophers who have championed this theory may be mentioned Dugald-Stewart, Victor Cousin and Vacherot (7). The unextended atom theory must not be confounded with the one advanced and sustained by Hume, Berkeley Hamilton, Stuart Mill, Coyteux and others, according to

(7) See *Revue des Deux Mondes*, August, 1876.

which nothing exists. Georgias of Leontium, the celebrated sophist, taught the doctrine of the non-existence of things, more than four hundred years before our era.

What is the atom, then? A mathematical fiction? No, but the elements of Matter seem to be one and similar for all bodies; so say alchemists who are seeking transmutation. It may be that at such a degree of minuteness Matter loses, as it were, its materiality and is merged into Energy. To this subject we will return later.

Whatever be its nature, according to the great law of conservation of Matter, as definitely established by Lavoisier, the atom does not change nor does it perish; notwithstanding its movements and perpetual migrations it is indestructible and invariable. It is naught but a fluid, cyclical, gyratory element of the universal fluid whereof matter is formed. (Helmoltz, William Thomson, Tait.)

Is energy, which animates atoms with a motion so rapid that imagination cannot grasp it, the real agent which establishes the molecule,

and does the latter represent aught but compacted Energy? Pure theory! At any rate, the physicists now agree in considering the hardest bodies as presenting in appearance only a continuous surface: for example, if we take a hollow silver sphere filled with water, hermetically sealed, the water will escape through all the pores of the metal if the sphere is struck with a hammer on an anvil. At every stroke of the hammer the water will form in tiny pearls at the surface of the metal. (Experiment of the Florentine Academicians.) Other facts prove to us that the idea of the impenetrability of matter is absolutely false. . . . Without speaking of two equal parts of water and alcohol, which, when mixed together, result in a quantity of liquid less in volume than the combined quantities of the two liquids taken separately (for it may be that in this case there is a variety of combination), we may also mention here the strange, mysterious but no less persistent facts of penetrability produced under the influence of *psychic force*, such as two rings, one of glass, the other of ivory, that may be rudely linked to-

gether without the trace of a solution of continuity. It is in the existence of these phenomena produced in his presence that Zoellner saw a possible demonstration of the fourth dimension of space. These facts, we repeat, ably prove the penetrability of bodies, and also their "demolecularization" and their possible reconstitution *ad integrum*, under the influence of certain forces which science will shortly make one of its principal objects of investigation.

The volume of molecules can at the most be counted in millionth part of a millimeter, and even if we take into account the relatively extended space which separates them from each other, it would be by trillions, quintillions and sextillions that we could calculate the number contained in a cubic millimeter. They are in a state of agitation, of projection, of violent shocks or energetic attractions and repulsions of which the motion of microscopical particles doubtless gives us but a faint picture. One may form an idea of their amazing whirling when one sees that hydrogen, at the ordinary pressure and temperature, shows a speed of its

molecules of about two thousand meters per second (Joule), and that each one suffers on the part of its neighbors about seventeen billion shocks during the same period. (Clausius, Maxwell, Boltzmann.) "It is the bombardment operated by this multitude of small projectiles against the surrounding bodies which constitutes the tension of gases," says Mr. Jouffret, in a remarkable work (8) on the nature of matter.

Each molecule formed of a multitude of atom-vortices is now considered by scientists, as it was long ago by the "initiated" of India and Egypt, *viz.*, as a planetary system with all its complications of motion and life, a life-directed, according to the pundits of the India of to-day, by the elementary intelligences of an inferior nature (elementals). The bodies, which are accumulations of molecules, would therefore be analogous to the milky way and the resolvable nebulae.

In short, if we take a microscopical particle

(8) JOUFFRET, *Introduction à l'Étude de l'Énergie*. Paris, 1883. Gauthier-Villars, pub.

of matter, and divide it in thought many thousand times, we will obtain a molecule which could be seen through our microscopes were their magnifying power intensified a thousand-fold. This molecule, as we perceive it, is but an agglomeration of atoms which may be considered as whirling elements, circles of energy, producing by their various movements the divers appearances of matter. A particle of dynamite, wherein is stored an enormous quantity of *mechanical* energy, may be taken as a rough presentment of the molecule, as it is considered according to scientific theories, *viz.*: by comparing the mechanical energy of dynamite to the *compacted* energy of matter, and the gases which are indirectly condensed by chemical processes within the dynamite to the agencied *Ether* which exists under the form of atoms within the molecule. Hence, matter may be nothing but one of the appearances of energy.

In view of the foregoing analysis of matter and of the results to which it leads us, are we not forced to admit with Hume, Berkeley, Hamilton, Stuart Mill, Coyteux and others that

nothing really exists? If there was nothing but matter and energy in the world we would answer in the affirmative, for energy itself, as we shall again see later on, tends not to disappear but to rest "on the Seventh Day," and instead of dynamic to become purely potential. In other words, the Universe leans toward absolute rest.

At the conclusion of this summary study, which has led us, in thought, within the depths of the infinitely small, let us frankly state our opinion. Notwithstanding the disturbance which these conclusions of modern science upon the nature of matter may have brought to our mind, we do not advocate the adoption of the theory of which we have just spoken. However, in the face of these studies which show us things under an aspect so different, we are constrained to admit that we are unceasingly deceived by general appearances. And thus, knowing as we do the imperfection and unreliability of our senses, we may advance as a manner of axiom that *the strongest illusion is that which we call reality.*



CHAPTER II.

SUMMARY: The general interdependence of things.—The science of the ancients was vast and deep; modern discoveries show it.—Why they did not popularize it.—The necessity of uplifting one's thought in order to obtain a fair idea of things.—What the author means by a *lucid zone*.—Principle and consequence of the independence of the absolute.—The opinion of Laplace.—Materialization of Energy.—Origin of the worlds.—Formation of the Sun and of the Planets.—Ideas of Laplace upon the plurality of inhabited Worlds.—End of the Worlds.—The Night of Brahma.—What becomes of human conscience among the ruins of the Universe?—Man, a cell of the Great Being.—Rapidity of the translation of the so-called fixed stars.

Before taking up the study of man and the analysis of his essence, the author has deemed it necessary to give an idea of the great All in which each one of the molecules and atoms of which we have just spoken are bound together. From a grain of sand to the immense suns there exist ties, the invisible threads of which are beyond the vision of human eye, but which the mind may grasp and conceive.

In this study of things existing, the ancients

were our masters; we cannot render them an homage too great; do not the discoveries of modern science enable us to comprehend many passages in ancient writings which the preceding generation could not clearly understand? Spectral analysis, for instance, showing as it does the analogy which exists in the composition of the stars—those suns which lighten and vivify myriads of earths—and that of our own sun; this very analysis placing under our hand, so to speak, the identity of composition between the sun and our earth, of which it also indicates its origin, seems to give us an explanation of the lines known as the golden verse of the Pythagorians, written in rhythmic prosodia by Lysis, a disciple of Pythagoras:

... γνώση δ' ἢ θέμις ἐστί, φύσιν περὶ παντὸς
[ὁμοίην
ὥστε σε μήτε ἄελπτ' ἐλπίζειν, μήτε τι λήθειν.

We must therefore seek to enlighten ourselves through the medium of modern science on the hieroglyphic symbols which have been handed down to us from ancient times. Why did the ancient sacred historians (Heathens, Judeo-

Christians, &c.) harmonize so well and unanimously agree that "God made man after His own image," and, again, that "man is a micro-cosm," which, from the hermetic standpoint, signifies exactly the same thing? It is because most of the scribes, deeply learned in a science which the ordinary class of men deserved not to know, understood the analogy in the composition of man to that of the Universe; they had experimentally learned that the elements of the "Sacred Tetrad" might be found in man. They had not awaited Bacon to invent the experimental method, nor did they cast to the winds the secrets of which they had robbed nature: sacred, for them, meant that which the vulgar herd was not to know. As they did not wish their discoveries to be entirely lost, they mentioned them in obscure expressions, they veiled them under symbolical figures which might serve as guides to the memory of their disciples, or as an awakening influence to the intelligence of future able and cultured observers, who would revive their teachings.

In order to understand the essence of Life, it

is necessary to make a comparative examination of the Universe and of Man—the Macrocosm and the Microcosm—and even then we cannot have a clear conception of it unless we lift the soul out of the ordinary groove of thought, from whence chiefly are born prejudices, erroneous ideas and delusions upon all that surrounds us; we must remove, at least for a moment, our mind from the narrow boundaries in which it daily grovels, and from the limited confines to which it has but too great a tendency to mould itself. A conception of the nature of man is one of those things which require such an abstraction of thought.

* * *

Spinoza said that we were always to look at things under a character of eternity. We can go further and assert that one must learn to consider all things in their relation to space and time, with eternity and immensity. How many great events, how many grand situations would seem paltry if they were to be submitted to the calculations of such a rule of proportion! But

it is an operation not within reach of everybody ;
non licet omnibus.

Another condition which it is quite important should not be disregarded, is the need of curbing that pride which too frequently accompanies a meager scientific education, a specialized and perhaps incomplete instruction, as is so often the case at the present day. A number of people well informed on one special point of knowledge, fancy that they are permitted to arbitrarily decide upon everything, and are ready to deny ought that may be new or that shocks the accepted order of their ideas, arguing often for this reason only (which they seldom acknowledge to themselves) that if such and such existed it were impossible for them not to know of it. We have often met with this sort of self-sufficiency among men whose education and studiousness should have preserved from this regrettable moral infirmity had they not been specialists limiting themselves to their specialty. It is a sign of relative inferiority to believe in one's own superiority.

Again, the number of intelligences affected with lacunæ is greater than is commonly known. For instance, some minds are utterly unable to pursue the study of music, or mathematics, as many are forbidden entertaining certain trains of thought. Many who have become distinguished in various lines of human occupation, let it be medicine or the grocery business, literature or the weaver's art, would have made a sad failure of their office had they chosen, as do many in this world, a career beyond the pale of what we shall call their *Lucid Zone*, comparing it to the action of some reflectors which, at night, carry the light within a zone of luminous pencils, outside of which all is shadow and uncertainty. Every human being possesses a lucid zone, whose extent, power and brightness varies with each individual. There are things which remain beyond the grasp and understanding of certain intelligences, being outside the boundary of their lucid zone. We need insist no further; an ill disposed critic might recognize his case in these observations and accuse us, by way of reprisal, of having chosen a sub-

ject outside of our own zone. May the gods spare us such a calamity!

* * *

Releasing thought from the atomic depths of matter in which we have plunged it, we will transport it to space, and view the macrocosm in immensity; we shall then see that the comparison of the molecule to the nebula is not inconsistent. Science is not acquainted with the laws of molecular movements, and while it knows more about those which govern the planets of our own system, it is still unenlightened on the laws of stellar movements. But, *considering the law of the independence of the absolute*, nothing prevents us from presupposing the movements of the molecule, as we conceive it, as being identically similar to those of the stars and planets. The proportion of time taken by the evolution of the molecule being, of course, in proportionate ratio to the amount of space within which it evolves. And, if upon these small masses there exist intelligent beings, the inhabitants of a size relative to the *interatomic*

planets or earths they occupy, they would not perceive their motion any more than we feel that of our earth, although it carries us along into space at a rate of about thirty kilometers per second; life on these diminutive planets would be shorter than the speed of thought, and would possibly be spent in occupations relatively as numerous and of as long duration, if not as futile as ours too often are. Time for them would have the same valuation and their pride in the achievement and greatness of their work would be no whit less than that of man's. . . . and as legitimate.

This principle of the independence of the absolute has been clearly grasped by Laplace, as is shown in the following quotation from his *Exposition of the System of the World*: "One of the remarkable properties of attraction, he writes, is, that if the dimensions of all the bodies in the Universe, their mutual distances and the rapidity of their motion were to increase or diminish proportionally, they would move in curves wholly similar to those in which they are now moving, and the Universe would still present to its observ-

ers an unchanged appearance. This appearance is therefore independent of the absolute movement which it may have in space. Hence, the simplicity of the laws of nature allows us to observe and to know nothing but relations."

Next, let us question what are those other molecules of the infinite, the stars and suns, blue, white, black (these probably exist; those that are extinct having cooled like the planets which are portions of suns), suns that are red or yellow, constellations, *nebulæ*, the Milky Way holding countless stars, among them our sun, which, being separated from each other by some billions of leagues, yet appear to us as if grouped together and contiguous. Let us ask how were they formed?

Look at the comets, they are nothing but "cosmic matter" seeking a channel in some part of the infinite space to create a new solar system. In this condition Energy assuming the form of atoms in order to conglomerate itself into molecules, has not yet issued from its potential state; but, if one point materializes the molecules will

immediately fasten to this point, and *Energy*, under its new form (*Matter*) passes into the dynamic state; the rain of molecules will multiply, the points of materialized energy will precipitate themselves upon each other, and generate an intensity of heat so great that they will be volatilized. And thus are formed the suns which gyrate through the heavens. From these melting suns volatilized annular masses escape and cool in space, where they are lost. Lost? No, they are held back by the attraction or that which we call attraction (1) of their sun, whose planet they become.

It is thus "that gravity, by a slow and vast operation of crystallization, whose progress through the depths of space is contemplated with emotion by the astronomer, condenses little by little that matter which was primarily prodigiously dilated, and forms it into solar, stellar and planetary systems." (E. Jouffret.)

And now let us add that life exists always and at all periods upon the suns and planets; it

(1) "*Quam ego attractionem appello.*" (Newton.)

merely adapts itself to its surroundings. Think you that life may not manifest itself upon such and such a planet because it happens to be colder or warmer than ours, more or less remote from the sun? Listen to our answer: "As the sun, through the beneficent effect of its heat and light, causes the earth to be covered with animals and plants, we judge by analogy that similar effects are produced on other planets; for it were not natural to think that matter, whose energy we see developing in so many ways, should be sterile upon other spheres. Jupiter, like the terrestrial globe, has its days, its nights and its years, and observers find alterations which presage very active changes (2). It would, however, be giving too great an extension to analogy, to conclude therefrom a similarity between the inhabitants of the planets and those of the earth. Man, who is fitted to the temperature in which he lives, to the air which he breathes, would be unable, from all indications, to live upon any of the other planets. But, must there not be an infinity of organization

(2) Which may be due to a yet incomplete solidification. (Author.)

in relation to the different constitutions of the globes of this Universe! If the mere differences in the elements and in the climates cause so great a variety in the terrestrial productions, how much more must those of the other planets and of their satellites differ? The most vivid imagination is unable to form an idea of them, but their existence is most probable" (3).

Now that science has brought us to witness the mode of formation of systems, the genesis of worlds, we may ask what becomes of all this agitation, all this movement? We shall again defer in favor of better authorities on this subject. "From a reckoning by Helmholtz, the Solar System," says M. E. Jouffret, "possesses now but the 454th part of the transformable energy it had when in the nebular state. Although this residue still constitutes a store, whose enormity balks imagination, some day it also shall be spent, and later on, a transformation of the whole Universe

(3) Laplace in *Essai sur les Probabilités*.

will occur, and a general equilibrium as to both temperature and pressure will be established.

"Energy will no longer be susceptible of transformation. It will not be nothingness, meaningless word, nor properly speaking, immobility, since the same total amount of energy will still exist under the form of atomic movement, but the absence of all sensible motion, of all difference and all tendency, that is to say, absolute death.

"The planets will no longer circulate around extinct suns. Successive agglomerations will have been produced, developing each time an intense heat (4), which might open once more a vital period more or less extended, having created solar systems more and more gigantic, but less and less numerous; having ended at last in bringing all things together in one mass which, hav-

(4) If the Moon were to fall upon the Earth (which it is nearing insensibly), the heat produced by this stupendous shock would be sufficient to induce a fusion of both planets and to produce a star that would shine with unusual brilliancy for the inhabitants of other planets of our system, if indeed there were any left to contemplate this "Sign in the Heavens." (Author's note.)

ing for a long time revolved upon its own axis, will end by remaining motionless in relation to the environing space; a mass henceforth homogeneous, insensible, unchangeable, whose awful quietude nothing shall ever more disturb."

Such, if we admit the permanency of the laws which now rule both nature and reason, is the state toward which the Universe is converging.

"Laplace, deceived by his calculations, did not suspect this final event."

"And the angel sware that there should be time no longer." (Apocal., Chap. X., v. 5, 6.)

Such is the destiny of the World: Like every living thing it has passed through an embryonic state; it has had its infancy, its adolescence and its maturity; the decrepitude of age is now at hand.

At least, such are the conclusions reached by modern science with its knowledge of the "elements situated at the two lower angles of the triangle." We refer to Matter and Energy.

It is an interesting fact to note that the

Brahmins and the Pundits of the East have a similar cosmogony. In their symbolical language, they term this final upheaval of the spheres, this arrest of the Universe at the *deadline*: "The night of Brahma," the night of innumerable ages during which, after having absorbed everything, both Gods and things, the "Ancient of Days" contemplates Himself in His Eternal Parabrahm.

And what becomes of man in all this clashing of the heavenly bodies which are ignited and volatilized by falling upon one another? What befalls the conscience of man and what fate awaits it? Science has not yet openly interested itself in this question, but it is bound to soon take up the study, for the manifestations of this conscience in *after-life* are beginning again to claim our attention, and to challenge observation.

* * *

Man is there, a poor, limited being in the midst of that immensity; weak if he fears, but

as strong as the world itself if he understands it and yields his mind to the all controlling fact, that he is naught but one cell of the Great All! He, though a limited being, "a mere reed, but a thinking reed," can conceive that which is unlimited; for thousands of years to him has been given the power to observe stars which seem not to have moved. The figures of the celestial sphere remain the same, and yet the instruments which man's genius has invented permit him to compute that those stars recede or advance at the rate of twenty, thirty or thirty-five kilometers per second! Sirius, for instance, which is situated at thirty-nine trillions of leagues from the Earth, recedes from it seven hundred thousand leagues a day, which is a score of times swifter than that of a bullet discharged from a firearm. This has been proved by spectroscopical analysis.

Thus man acquires knowledge and ceases to wonder. In a flash of thought, he is transported to other worlds, his mind revealing that which dimness of vision denies him. Re-entering his own sphere, if not inflated with

vain pride because of his glorious ascension, he, too, becomes godlike!

As a material emanation of the planet on which he pursues his vertiginous journey through space, he may learn of the dangers which surround him; they, however, will not disturb him if armed with the Ægis of Knowledge. . . . But let us not anticipate. Let us back to the surface of the terrestrial sphere, and there seek the microcosm and endeavor to acquire that which modern science alone can teach us in regard to it.

PART II.

A STUDY OF THE MICROCOSM.

CHAPTER I.

SUMMARY: A glance at the knowledge which Physiology has given us of ourselves up to the present time from the psychical point of view.—The physico-chemical doctrines.—The animistic and vitalistic doctrines.—Modern materialistic doctrines.—The opinion of Claude Bernard upon Living Matter.—Opinions of divers medical men, and other scientists.—Are life and intelligence mere properties of matter?—Organic, animal and intellectual life.—The progress of the nervous influx.—The rapidity of the nervous current through the nerves.—Pathology shows that will has no exclusive seat within one or the other of the cerebral hemispheres.—Modern opinions on the properties of nervous cells.—Are ideas nought but infinitesimal electrical discharges, produced by the nervous cells?—Part played by the Positivistic method.

It would be foreign to the intention and capacity of this work to enter into a complete history of the theories which have, at various times, been advanced in reference to those phenomena which preside over the maintenance of the

functions of organized matter—that is, of life. We presume that the reader is acquainted with the old physico-chemical, animistic, vitalistic, Stahlistic and other doctrines. We know that many refused to see in life ought but a peculiar mingling of phenomena carried out under the laws of physics and chemistry, whereas others, the animists, considered it as an all-powerful manifestation of the soul (Stahl) or of an inferior Archea (Basile Valentin, Van Helmont, etc.). That immaterial thing, according to the animists, is the great *Deus ex Machina* of life; that which watches over the proper workings of the cells, which looks after the secretions, and, in a word, rules every act of organic life. Intelligence, or the intellectual part of the soul, holding itself above all others. Notwithstanding the materialistic tendencies of our day, the chemical ideas of the older materialists, who confounded biology with chemistry and physics, have not been adopted, and the majority have attached themselves to a well-nigh eclectic hypothesis which we fancy will satisfy but temporarily even the most uninquiring of intelli-

gences. They maintained that life is a *property peculiar to organized matter*, providing it be placed under favorable conditions. Life, therefore, to them represents merely a quality subject to a special form of organized matter, just as volume, weight, etc., are properties inherent to matter in general.

And yet the greatest physiologist of the century, Claude Bernard, said that organized matter in itself, and *even living matter*, is inert, and must be considered as being absolutely devoid of spontaneity. But, he adds, inasmuch as living matter is "irritable," it can enter the active state and manifest its especial property of life under the influence of some excitement.

If, with this illustrious and regretted physiologist of the Collège de France and Museum of Natural Philosophy, we agree that living matter is inert when not under the influence of an irritation, and that it manifests its peculiar properties only when under this influence, we are compelled to admit the hypothesis that there may exist an agent capable of irritating living matter outside of and possibly independent of matter it-

self. Hence if this "irritating" agent is free and has an independent existence, it precludes the idea that life, as we picture it with its manifestations, is naught in substance but the property of organized living matter.

But does this not amount to a play of words? Could not Claude Bernard's experiments be brought in evidence against him? And would we not be justified in objecting: If living organized matter is inert and needs an *external* excitant to call forth a manifestation of its properties, we cannot understand how the hepatic cells continue to secrete sugar so long after the liver has been separated from the body. We trust to advanced Science, which by no means precludes prior discoveries, to elucidate this question and eventually bring us a satisfactory solution of it.

So far, we have lightly gone over the principal theories of life; we will shortly interest ourselves in the so-called scientific opinions which commonly prevail upon the nature of intelligence.

We never fail, when occasion presents, to

question learned men (physicians, physiologists, biologists, etc.) and endeavor to elicit their views on the subject now under discussion, but so far, reluctantly confess, that, with few exceptions, the opinions have been rather unclear and unformed.

By some, especially in Germany, is held the belief that life and even intelligence are simply the peculiar properties of matter, which in perfecting its organization under the influence of the laws of evolution (Haeckel) tends to produce phenomena (which we call vital) of greater and greater complexity. These laws organize, or polarize, if we prefer, after the manner in which we are now observing them upon this particular point of space, in an altogether arbitrary manner considering that the origin of their actual state is but the consequence of previous conditions.

In France several distinguished physicians, notably a scholar celebrated in nervous pathology, have given similar answers, but the greater number of learned men to whom we propounded our queries replied unsatisfactorily, thus proving

that the *ties* which bound them to their specialties admitted of no leisure for reflection to select an opinion on the subject. In Spain and Cuba, where many cultivated and well read minds are met with, and also in North America, our experience, we regret, was as aforementioned.

Thus the tendency of Science to-day is to consider life and intelligence as manifestations, or rather properties, of living organized matter; properties which are essentially transitory, just as is matter itself which *secretes* them. "The brain secretes thought as the kidneys secrete urine," said a celebrated German thinker.

However, let us add that if such is the opinion most prevalent, quite an imposing minority (among those who seem to have an opinion) professes either *in petto* or openly, certain spiritualistic opinions, or else, being indifferent to physico-metaphysical discussions, murmurs the words of Montaigne, "What do I know?"

An appreciable change is, however, occurring, and we do not hesitate saying that the spiritualistic movement is becoming more and more pro-

nounced, especially among the enlightened classes of our young men. Considering the publication of our work on psychical phenomena, we might perhaps say à propos of this movement: *Cujus pars parva fui.*

* * *

Without presuming to be able to show in a few lines the acquisitions of psychological analysis and observation, we will endeavor to summarily expose the data of positive science upon the principal psycho-nervous functions of life to the extent made necessary by the limitations of this work.

The functions of the nervous system in the maintenance of organic life are as yet very obscure. If the anatomy and the histology of the ganglionic apparatus are fairly well studied, the same is not quite true of its physiology. It is evident that the part played by the nervous system in organic life is most important, but what are the parts played by the different portions of this system? Are the sympathetic ganglia centres, or merely auxiliary, supplementary or-

gans. One fact accepted is, that the great sympathetic, the principal uncontested agent of vegetative life, transmits very rapidly to the periphery the central impressions which act upon the organ of intelligence. To illustrate, we cite but one instance: witness the rapidity with which our faces flush or pale according to the nature of the impressions received. In this case the sympathetic nerves enter into play after they receive a stimulus from the intellectual centre, by dilating or contracting the arterioles of the face.

The experiments of hypnotic suggestion in which one sees, for instance, the suggested idea of a blister producing a serous bulla upon a designated point of the subject's skin, show under another light the close intimacy uniting the central nervous system of ideation with the nerves of organic life, and, although actual science is able to demonstrate but a few effects in the operations of organic life, in the main, as in many other cases, she denies us absolutely a *wherefore* or primitive cause.

From the animal standpoint, among the vital or exciting agents of living matter, we are able,

to a certain point, to analyze the one which determines conscious voluntary movement. For instance, take the motion of flexing a finger. We know, or rather we presume, that the first period of this action takes place in the cortical layer of gray cells of the anterior part of the cerebral lobes (volition). The nervous cells of the cortical layer send the *excitation* through the white fibres of the corona radiata (the fibres crossing one another, for the major part, within the corpus callosum) to the basal ganglia of the opposite hemisphere, and these, through centrifugal fibres, or by a retrograde motion, send back the *influx* to the gray cells upon the surface of the convolutions in the point of localization which corresponds to the movements of the upper limb (middle third of the anterior and posterior central convolutions). From this point, the nervous fluid which is to excite the muscular fibres of the forearm and cause them to contract, doubtless passes through the internal capsule, the crus cerebri, the medulla oblongata, the spinal cord, and through the nerves of the brachial plexus, as far as the flexor muscles of the forearm, the contraction of

one of whose fasciculi brings about the flexion of the finger.

Experiments have permitted Helmholtz to ascertain the rate of circulation of the fluid of which we have just spoken. The nervous current (or nervous vibratory wave) passes through the nerves at a rate of 28 to 30 meters per second. In other words, an excitation produced at the beginning of a motor nerve, if it had a length of 30 meters, would take one second to cause a contraction of the muscles situated at the extremity of this nerve. The same thing would occur in a sensory nerve, but the current would take an inverse course—that is to say, a centripetal one. It is an exceedingly slow rate of speed, especially when compared to that of an electric current.

That the several movements due to nervous energy must needs follow the path whose course we have indicated in this particular case, starting from a centre of volition, is proven by the fact that a man, for instance, suffering from paralysis of either side of the body (hemiplegia), although incapable of causing any action in the cerebral

nervous centre which has been destroyed, still retains the faculty of being able to *will* a movement in the disabled limb which he vainly endeavors to move. This proves that *Will* has an independent seat, and that it is not localized in one cerebral centre more than in another. The same must be said of Conscience.

According to the present materialistic doctrine, the central organs of the brain would not be the instruments of the intelligence acting by means of them, but would be *able* of their own accord, through the mere effect of their nutrition, without external excitation, to develop forces acting upon their fibres. It is what has been called *automatism of the nervous centres*. And as to "the so-called will-phenomena, they are without doubt but a complicated form of reflex acts." Memory would consist in nothing but an effect of the "power which the nervous globules possess in maintaining certain excitations in order to allow them to manifest only at a given moment."

In a treatise on physiology, a work most pop-

ular with French medical students, may be found the exposé of the theory from which have been borrowed the quotations just perused (1) which holds that intelligence and its manifestations must be considered entirely as properties of matter organized under the form of nervous cells.

These nervous cells, according to Rosenthal, are, from a psychical standpoint, possessed of four properties: 1. They may spontaneously be the seat of an auto-excitation; that is to say, without the intervention of external causes. 2. They are able to transmit a stimulus to another nerve cell, by means of fibres which unite them, which are nerve fibres. 3. They may receive an excitation, or stimulus, and transform it into a sensation. 4. They are able to suppress an existing stimulus.

To these four properties a young and brilliant philosopher of Cuba, Sr. Varona, adds another which may be considered as an extension of Rosenthal's first proposition, namely: "Spontaneously or through the agency of purely inter-

(1) *Cours de physiologie d'après l'enseignement du Prof. Kuss, par le Dr. Mathias Duval. Paris.*

nal causes the nervous globules are able to renew sensations anteriorly received" (1).

Ideas, according to this theory, would be mere combinations of these properties, and would consist only in sensory and motor elements. And all sensations, with ideas and thoughts, would merely be movements occurring within the nervous substance, partaking of the nature of electricity, and arising from weak discharges of the motor and sensory parts of the anatomical substratum. (Hughlings Jackson.) The experiments of Dubois Reymond upon the intervention of electricity in nervous phenomena would seem to support this ingenious theory.

We cannot help recognizing that psychical phenomena which are *secondary* to the acts of comprehension, conception and volition, occur somewhat *as if they were determined* by a causation of the electrical category; however, we must observe that, while the nervous current which follows the nerves causes (through a hypothet-

(1) *Enrique Jose Varona. Conferencias Filosóficas. Psicología. Habana, 1888.*

ical molecular modification) a change in the direction of the natural current of an extra-sensitive galvanometer, it does not act, at least from the standpoint of speed, in the same manner as does the ordinary electrical current. This question, however, is but of secondary consideration, for, even if we admit as established, the existence of a centripetal or centrifugal current which follows the nerve-fibres, we can hardly believe that the theories which we are endeavoring to render clear to the reader are fully able to satisfy even their defenders as to what relates to the *First interior cause* of psychical phenomena.

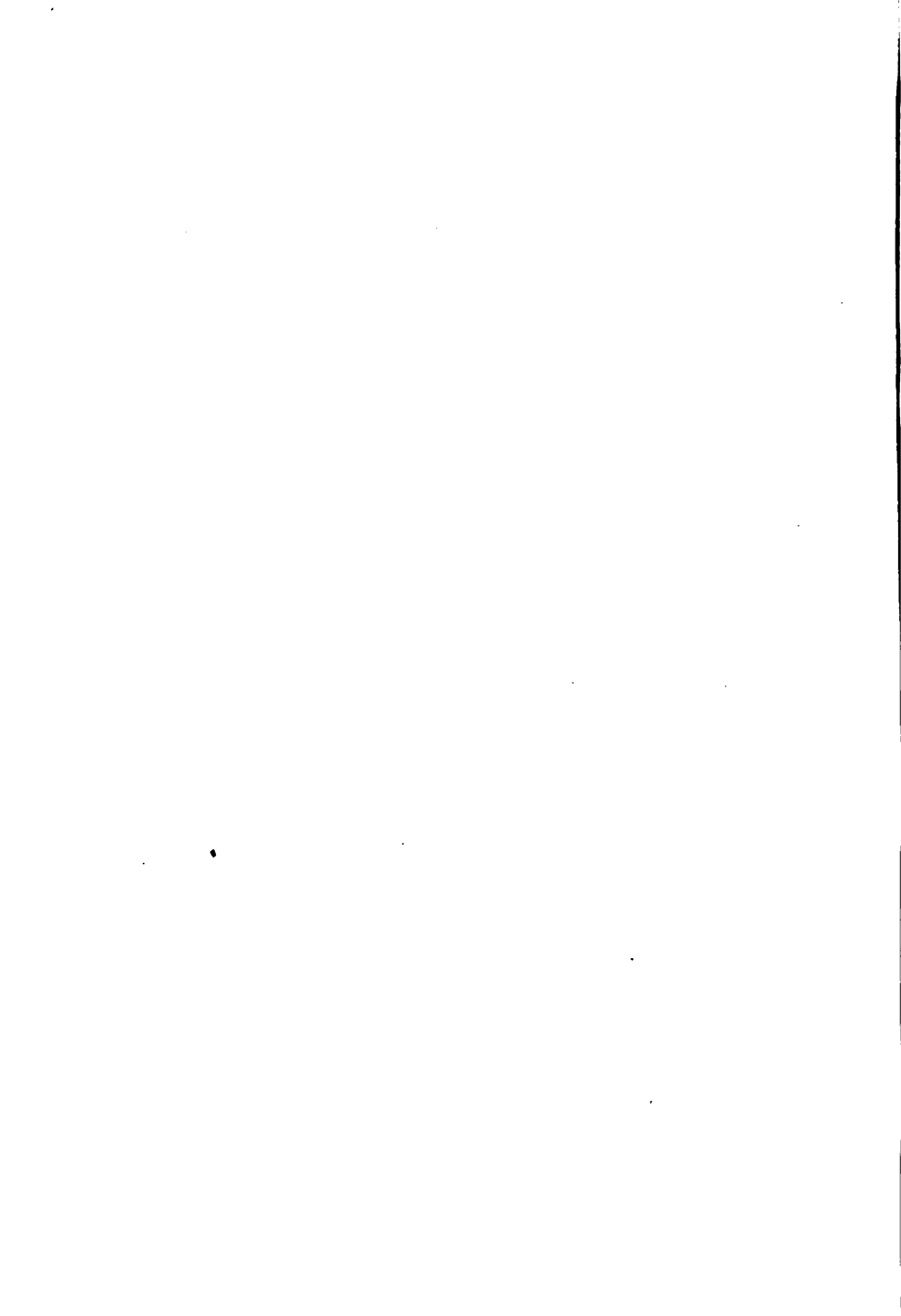
They show us in this supposed electrical apparatus the bell and its mechanism, the spring and the electro-magnet; in our dissections we may pass through the cerebro-spinal battery and follow the conducting threads, similar to metallic axis-cylinders, and, like them, isolated as if by a silk or gum neurilemma; they may cause us to hear the sound given forth by the apparatus, and even make us feel the fluid itself, but we are not shown the invisible finger which turns the key and closes the current.

Notwithstanding the care taken in examining the nervous system, more especially the brain, nothing can we find upholding or supporting the various theories on matter and mind. This fact has been noticed by Sr. Varona in the remarkable work which we quoted above. "While beholding," he says, "this globular mass, with a surface so irregular and so deeply furrowed with fissures, and weighing two or three pounds, I have always experienced the most vivid sensation of astonishment. It appeared to me as though the great enigma of Psychology were arising before me, and the vanity of all the answers that have been made to it heretofore has appeared to me in the brightest light.

Physiology does not enable us to discover within that great centre tissues, elements, currents or functions other than those which have already been recognized. All that the most careful examination may show is a structural difference of small importance *per se*. And yet, the marvelous world of intelligence and imagination, the grandeur and misery of sentiment, the heroism and frailty of will, all that constitutes Man, all that raises or lowers humanity, lies there."

These philosophical considerations, which briefly picture the sentiments of one of the distinguished psychologists of the modern positivistic school, will serve to end this chapter, for we do not wish to speak at greater length of this doctrine and its defenders, having intentionally mentioned but one of the youngest of its advocates. More could certainly be said of its works, but we must limitate our discussion. We will merely add that it is a cause for pride to our race to behold the loftiness of thought which men have attained, whose steps within the inextricable labyrinth of cerebral physiology were not guided by Ariadne's thread of psychological experimental research which has only recently been unfolded. But a new era is beginning; minds, prepared by the method of the positivistic school, will be abler than heretofore to advance on the psychological ground which invites our investigation. A few belated positivists will still resist for awhile, but now that the path has been cleared by them, the work will steadily progress. Every one in the concert of life fills his part after his own method, and he who ex-

erts a conscientious endeavor toward the upholding of even an erroneous doctrine is at times the unconscious agent of Providence; instead of casting a veil over truth, as he apparently does, his work often serves to prepare the way to its triumphant victory.



CHAPTER II.

SUMMARY: The part to be played in future by experimental Physiology in the study of the essence of Life, of the Vital Ether.—Psychological physiology will have to follow its study as far as, and even after, death.—Matter and Energy admitted as two constituting elements of the Universe.—If there exists in the Universe nothing but matter and energy, conscience must be extinguished simultaneously with death, the last function of the body.—But there is a third element.—Ancient origin of materialisms, as well as of spiritualisms.—The opinion of Solomon, of Moses, of the Eastern Buddhistic Sects.—Quotations from the "Ruines" of de Volney.—Pantheism.—Nirvana.—Neant (nothingness).—The causes which operate to breed disagreement among philosophers.—They will all agree some day, at least as far as primordial ideas are concerned, thanks to experimental Science.

We have seen in the preceding chapter that the classical physiological studies have as yet taught nothing in regard to the true nature of Life. The times are ripe when the psychologist, backed by a real store of positive knowledge, must make researches in a more hazardous direction. Leaving the field of life, which is bounded by death, he must analyze this last phenomenon, death, this *ultimate function* of the body, and

study experimentally the properties of the *vital ether* of the *nervous Akasa*, as did his predecessors, the ancient hierophants, who are his masters in this matter. But, ere we travel further toward this path which we are seeking to discover, the reader must permit that we place before him a few indispensable preliminary thoughts and notes.

If we admit the natural conclusions of the theory teaching that the manifestations of life in general and those of intelligence in particular are nothing but the putting in action of *certain properties of organized matter*, we must also admit that at the instant of death everything goes into nihilism—that Nirvana of Materialism.

If we grant to modern Science that another true being equally as important as matter, studied under the name of Energy, (7) constitutes an element of the Universe, we do not modify the results of our analysis. For if we hold to the exclusive existence of Matter, whose properties may alter according to its different conditions, its

(7) E. Jouffret. *Op. cit.*

molecular groupings, we must admit that, at the moment of death, the properties of organized substance disappear when the change of state, characterized by the cessation of life, takes place. The living organized matter having evolved once as matter, its *evolutionary acme of complexity*, is, like the Sisyphean rock, rudely carried back to lower grades upon which it descends more and more swift toward the inorganic state from whence it originated. During its consecutive stages its properties are modified with their changes of state upon the eternal cycle figured in the symbolical Ouroboros, the serpent of the ancients.

But will we make any advance toward the solution of our problem by admitting the autonomous existence of Energy "as a true being, an element constituting the Universe?" We think not; energy and matter are co-existent. Very well! Like unto matter which from the Cosmical or radiant (Crookes) state passes to the gaseous, liquid or solid state, or to any of the infinite combinations of these, energy becomes light, motion, heat, magnetism or electricity, X-rays of

Roentgen, according to the mode in which it acts upon matter, or becomes united to it. Associated with organized substance, energy would be transformed into life, intelligence, etc. And in the same way that matter in motion loses its *dynamic energy*, through its tendency to what is known in mechanics as the *degradation of energy*, in the same manner living organized matter loses also its *dynamic*, that is to say, its vital energy, under the influence of a law which is analogous to that of "degradation." This vital energy would tend, as well as the element of which we have already spoken, to return to the great common store-house of *potential energy* from whence, to the end of all time, the forces of the Universe gravitate. It would still be the *immediate annulling* of conscience, or, as some express it without sufficient reasons, the return to the *Unconscious* (8).

We beg the reader to ponder well on what has been said, for we shall soon again resume the

(8) Perhaps from the following definition of God, taken from the Sanscrit text: "That which He is, He alone knows, and perhaps even He knows it not."

study of this subject. We will see that if matter and energy were at first one, the psychical phenomena, to which we shall call attention, force us to recognize a third principle which joins itself to that Duality, *matter*, forming Trinity, which is the basis of all esoteric, that is to say, of all the secret, religious systems of antiquity. From time immemorial it is the Trinity which those who have acted as the mediators between Heaven and Earth have consciously or unconsciously clothed with various symbols. And thus is Nature offered for man's adoration!

* * *

We already foresee the objections which will be entered against us. We will be accused of imitating Pythagoras and Pherecydes, his master, whom Heredotus, insidiously, and Cicero, openly, charged with having plagiarized and appropriated the systems of the Indo-Egyptians. Upon this matter we beg to refer the reader to what has been said in the introduction of this book. Moreover, is it an objection of any import to argue that "there is nothing new under the Sun?" Are the materialistic doctrines recent,

which at present are so strongly upheld under the names of mechanism and positivism, and which nearly all lead to nihilism? Not at all. Of those various doctrines one is as old as the other. Was it not a nihilistic idea that inspired Solomon when he wrote:

"I said in my heart concerning the estate of the sons of men, that God might manifest them, and that they might see that they themselves are beasts.

"For that which befalleth the sons of men befalleth beasts; even one thing befalleth them: As the one dieth, so dieth the other; yea, they have all one breath; so that a man hath no pre-eminence above a beast: For all is vanity.

"All go unto one place; all are of the dust, and all turn to dust again." (Eccles. iii., v. 18, *et seq.*)

This seems to have been an opinion shared by Moses, for in the writings which modern criticism attributes to him he nowhere mentions the soul as an entity surviving the destruction of the body.

On the part of Solomon this doubt (for he expresses himself as if in doubt) has nothing

surprising in it ; notwithstanding his reputed wisdom, the son of David does not appear to have been altogether an adept of ancient knowledge. But, one may wonder still more to learn that Moses, one of the Hierophants of the temples of Thebes and Heliopolis, was silent upon such a subject. A man of an intelligence so diverse must have been guided by some superior reason to have withheld speech. It is not in our province to comment on the actions of this truly divine genius who so ably led and held in abeyance a crowd of barbarians, the effete element of a populace driven from Egypt at the time of famine, in a country which was then overrun with strangers (as reported by Diodorus of Sicily ; Lib. xxiv. and xl.), and made of them a people whose longevity still astonishes the world.

If we go further toward the East we find Annihilation, which comprehends the disappearance of parts in the whole, presented under the attractive and desirable doctrine of Nirvana. The Buddhistic Church of the South, especially, seems to have accepted as a Credo (if we dare be-

lieve those who have conversed with Pope Sum-mangala) the following words which are attributed to Buddha, and which de Volney in his "Ruines" places in the mouths of learned Chinese and Siamese priests:

"Here is the Interior Doctrine which Fot (Buddha) himself, on his death-bed, revealed to his disciples: 'All theological opinions,' said he, 'are but chimera;' all tales relative to the nature of the gods, to their deeds, and lives, are naught but allegories and mythological symbols under which are hidden the wisdom and knowledge of the operations of nature in the play of elements and the course of heavenly bodies.

"The truth is that everything *resolves into nothing*; all is illusion, appearance, a dream, that *moral metempsychosis* is nothing but a picture of *physical metempsychosis*, or that *Successive Movement* by which the elements of one body which do not perish but disintegrate, pass into other media and form other combinations. The soul is but the vital principle resulting from the Properties of Matter (this was written in 1820, 7th ed.) and the play of elements in the bodies

in which they create a *spontaneous movement*. To suppose that this *product* of the function of organs, born with them, fallen asleep with them, subsists when they are no longer, is perhaps a pleasant tale, but in reality chimerical, and born of an overtaxed imagination. God himself is the *motor principle*; the *occult force divided among beings*; the *sum of their laws and their properties*; the *animating principle*; in one word, the *Soul of the Universe*, which, by reason of its infinite variety of relations and operations, is sometimes *simple*, sometimes *complex*, now *active*, then *passive*, and always remaining to the human mind an *insolvable enigma*. All that we understand is, that matter does not perish; that it essentially possesses properties by which the *world* is governed like a *living and organized being*; that the knowledge of those *laws*, in their relation to man, is what constitutes *Wisdom*; that *virtue* and *merit* reside in their *observation*; that *evil*, *sin*, *vice* are the outcome of *ignorance* and the breaking of these laws; that *happiness* and *unhappiness* are but the result of their application, by the same *Necessity* which causes *heavy*

things to fall and light ones to rise, and this, by a fatality of causes and effects which form a chain connecting the least atom with the highest of stars. This is what was revealed by our Buddha, Somona Goutama, on his death-bed."

We know from authentic sources that the doctrine, which in a few sentences has just been so brilliantly exposed, constitutes the hermetism of a number of oriental sects. Nevertheless we do not think we err in saying that de Volney unveiled his true sentiments in this magnificent exposition. However this may be, the conceptions and even expressions are exactly the same as those which we find to-day in the exposition of the philosophical doctrines which certain modern writers perhaps think they themselves have revealed.

Without mentioning the Greek Philosophers, we could write volumes of such quotations, telling of the antiquity of materialistic doctrines, but we must keep within bounds. The annihilation toward which the various philosophies or theosophies *sooner or later* lead the destiny of human

consciousness, is but a consequence of the Pantheism doctrines toward which one tends when basing and guiding reason, not upon the sentiments of the moment, but only on the positive and well ground scientific data now at our disposition.

We must not ignore or refuse a theory merely because it is contrary to our teachings and desires; for example, we wish to be free from illness and yet we suffer; to retain a perpetual youth and yet we fall into age, and a similar fate—decrepitude and the grave—awaits us all. Candidus reasoned optimistically, "that everything is for the best in the best of worlds," and perhaps it is needful and good that grief and trouble should be visited alike on one and all (9).

Pantheism was the hermetic doctrine of the old laboratories and institutes (temples). If we can rely on Strabo, the well-known Grecian geographer, Moses, the great legislator of the Hebrew people, must have professed a pure Pantheism; otherwise, would he have said (if he did say it)

(9) We recollect that when a child we waxed wroth when told that we would grow old and hoary like our grandfather, providing "God lent us life."

that God created man after His own image? Strabo speaks as follows (1):

"Moses, who was one of the Egyptian priests, taught that it was a grievous error to represent the Divinity, as did the Egyptians, under the forms of animals, or with the features of man, as did the Greeks and Africans. '*That alone,*' said he, '*which composes the heavens, the earth and all beings, that which we call the world, the Universality of things, Nature . . . that alone is Divinity. . .*' For this reason Moses caused the Divinity to be worshipped without emblems and under its own nature."

Virgil has said: "The spirit maintains the life of beings, and the soul (of the world) scattered in its vast limbs agitates the mass (*mens agitat molem*), and represents but one immense body."

Therefore from this we deduct the fact that the deep and subtle minds of former times whose genius was in no way inferior to that of the men of the present day, have discussed among them-

(1) Geog. Lib. XVI.

selves the same obscure subjects which men for the same reason discuss to-day. Philosophers of all ages have observed, that no sooner do men discuss 'subjects beyond their limitations than each one judges them according to the bent or tendency of his mind, or, as we say, with the inclination of his sentiment; on the other hand, they agree upon such subjects as fall under their senses. But Science has advanced: Marvelous discoveries have been made. The certainty of modern experimental science, with the aid of sensitive and accurate instruments now permits us to undertake studies and make investigations which our forefathers, excepting in a few rare initiatory cases, could scarcely approach unless with the aid of the *a priori* or inductive method.

Philosophers will modify and conciliate their opinions as soon as they can put in evidence and study, with the aid of experimental instruments, the third principle to which we have alluded above, that third term of the trinoma, two expressions of which are otherwise known as *Matter* and *Energy*.

It may appear paradoxical at first glance, yet

spiritualists and materialists, though following different paths, but pursuing honestly the search for truth, are not as remote in agreeing as one might at first believe. We might liken them to laborers, who, divided in gangs to bore a tunnel, begin at opposite sides of the mountain, and thus work on until at last they find that their line of pursuit converges, and so, some day, will the various antagonistic philosophical sects, through the falling of the veil that separates them, be united in a communion of primordial and fruitful ideas.

We shall see in the course of this work that this opinion is established on another basis than an "agreeable tale, but one really based on a chimerical and mistaken imagination" (2).

(2) de Volney. *Op. cit.*

PART III.

THE SEARCH FOR THE THIRD ELEMENT OF THE UNIVERSE AND OF MAN.

CHAPTER I.

SUMMARY: Comparative study of the Macrocosm and Microcosm.—There are two uncontested elements in both the one and the other.—The matter of the human body is the same as ambient matter.—We are the grandchildren of the Sun.—The forces of the human body are borrowed from Universal Energy.—As far as matter and energy, Man is eternal.—The Method of Reasoning for the search of the Third Element.—It is within himself that Man finds the explanation of the Universe.—Intelligence exists in the world.—Intelligence, Energy, Matter.—An insurmountable dilemma.—Arguments gathered from cerebral lesions in favor of materialistic ideas.—Specious arguments.—Experimentation only is able to bring about an agreement.—Are there any material proofs of the existence of the Soul?

Having given a brief idea of the constitution of the Universe and of Man, according to the data of actual science, the moment has come to make a comparative study of the Cosmos in the Universe and in man in order to find out the similarities or analogies which may be met with in each other.

We have seen that in the Macrocosm there are two things which possess an incontestable existence, to wit: Matter and Energy, notwithstanding the admission that the first is but an appearance, or rather an emanation of the second.

On the other hand, physiologists of the modern school, who do not seem to remember the facts just studied, refuse to see aught in the manifestations of life, and even intelligence but *properties of Matter*.

It behooves us to determine at once one point: It is well understood that the matter entering into the composition of the human body is exactly the same as that which surrounds it. Every chemical element found in the human body exists also in the ground that nourishes us, and in the dust of which we are made. As before mentioned, man's body is a material emanation of the planet which carries him through space (3).

(3) The Earth having the solar origin we alluded to above, we can from more than one standpoint, say that we are grandchildren of the Sun. The Incas and other people who called themselves sons of that heavenly body had perhaps, in a symbolical manner, some idea of this origin.

How could human matter be differently composed from the other, and how could it have distinct properties?

It is, therefore, important to establish as a principle the fact that the movements made by man, his animal heat, the circulation of his blood and nervous fluid, the vibrations of his cerebral tissues, etc., are by no means properties of the matter out of which he is made, but an emanation of the Universal Energy which manifests itself, according to his mode of life, by means of matter that has been *agencied* in a particular way to further that end.

The subject has been mistaken for the object, as the Sun was once mistaken for a satellite, a mere luminary of the Earth. Hence, it would be more accurate to say that *Matter is a property of Energy*, than to advance the contrary.

Consequently, we recognize in man the microcosm, exactly what we find in the macrocosm, that is to say, matter and energy, both represented under different forms.

We could lengthen this analysis and show that man being formed of matter and energy is im-

mortal, and even eternal, for although matter and force may both be transformed, they remain atomically the same for all time.

However, let us add that if man was all matter and force, his personality would exist no longer than would the combination of those two elements of which he is composed, for neither one of them is *himself*.

* * *

Man, however, the philosopher, rising above material objects, the better to dominate them, plunges his thought into infinite space, endeavoring to clear two mysteries: The mystery of the World and the mystery that he is to himself. He gazes at the celestial vault and the stars, he anxiously scans the Universe, where he, a mere atom, is lost. In order to be disturbed by nothing he seeks to abstract himself from all that he has acquired.

A first fact impresses him: *Something exists*; this he calls *Matter*.

A second fact attracts him nearly as soon: This matter *moves*. But he promptly learns that

it does not move by any power vested in itself, it being inert, cannot move of itself. An examination tells him that the movement, its consequences and transformations, are manifestations of *Energy*.

Having satisfied himself so far in his examination, that everything reduces itself to a demonstration of *two principles*, upon which all the phenomena observed depend, man stops astounded and disappointed. The existence of Energy may explain to him the origin of Matter, but what is Energy? Whence does it arise? What becomes of it?

It is in vain that he lingers, gazing upon worlds which majestically move in a course which an invisible hand seems to have traced for them. He despairs of learning ever from this great mute and solemn, yet animated Universe. However much he questions the stars, the moon and the planets and their innumerable inhabitants, all those giants of the fathomless space, remain deaf to his voice.

Man then must return to his own nature, listen to his own life and analyze himself.

In his own person he sees a body, borrowed from ambient matter. Hence, this *borrowed* body belongs not to him; and when the great and ineluctable reckoning day dawns, as it will for every living mortal, he knows he must yield up, abandon and return to the earth that which he received from it. The more he analyzes it the more he finds that his matter has the same components as Universal Matter.

Then he finds, still within himself, under forms that are as varied as those of matter, this other unity or being: Energy, whose effects he has seen in the objects that surround him.

Up to this point he *understands* that he is made of the universal matter and energy; *but*, through what medium has he *understood* all these things? Is it through his matter or his energy, or through both? But, in either case, it presupposes universal matter and energy to be *intelligent*.

When he sees the effects of death and the inertia of a dead body, he deducts therefrom the knowledge that matter in itself is unintelligent.

And when he analyzes within himself the varieties of energy and notes that their only office

is to perform the functions of his "agencied" matter and to execute the orders of his conscious and intelligent will, he is then made aware that he has attained that which he has striven for; he *understands* by means of *something* which is neither his matter nor his energy, and to *this*, he gives the name of *Intelligence*.

And, knowing his own nature, he logically argues from the Known to the Unknown, and says to himself that his matter and his energy having sprung from the Universal Source, his intelligence must needs have the same origin; *at last he has discovered* the third element of the Universe. He has seen and understood that, co-existent with *Matter* and *Energy*, there is *Intelligence*.

He has felt that in order to have a concept of the Universe, man is compelled to study and understand himself. For we can no more get at the essence of the World by what we see of it than could a being endowed with an intellect like ours, thoroughly understand or even form an idea of the nature of man if its size allowed it no more than the study of a few globules circulating in a capillary blood vessel.

In fact, we cannot extricate ourselves from this dilemma. There is either *One* Intelligence in the Universe, an Intelligence from which may have emanated numerous limited intelligences, just as matter under the form of limited "objectivities" emanates from energy, which itself may emanate in its turn from the Superior Principle, or else matter and energy are endowed with intelligence. For, why should that matter which makes up the brain of man be of itself the only substance to produce intelligence? Is there not in the Universal Substance another matter just as capable of producing ideas as is the paltry mass of fatty and phosphatic pulp which we call our brain? To ask the question is near to solving it.

One of the great arguments of those who see in intellectual manifestations but a simple product of we know not what chance that occasions a certain arrangement of the organized matter of the brain, consists in this: The man who is most brilliantly gifted with mental qualities may, after a blow on the head, a poisonous intoxication, an apoplectic attack or other lesion of the nervous substance, become like a dumb brute and live

out a mere vegetating existence. And they say: There you can see that intelligence, that divine soul of man; it suffices that a small artery should be ruptured or become obliterated in this or that point of the encephalon to make a mute of the greatest orator, a driveling idiot of the loftiest intellect! Is this not proof sufficient that intelligence is a property of matter, since the latter being in a measure disabled, nothing of intelligence remains . . . ? Well, no, it is not proof substantiated!

If we resort to a process which we will again utilize for demonstrative purposes, and accept as proved the existence of independent intelligence, it will be most evident that if, for one purpose or another, that intelligence unites with the delicately grouped and finely organized matter which forms the substance of the brain, a certain amount of disturbance occurs in its manifestations, at the very moment when this matter undergoes any form of disorganization.

We will grant that outside of experimentation, the reasonings which may be entered against

those which precede, are of no greater value, from a rigorously scientific point of view, than the one which it seems destined to combat. We can answer, for instance: You deny the existence of the soul because it acts no longer when matter which serves to manifest those functions is destroyed or diseased; it is as though you denied the existence of steam, if through some accident to boiler or cylinder the engine should stop. Or again, the best artist could give but a meagre demonstration of his talent if compelled to play on a violin that lacked the full complement of strings or on a piano from which some keys were missing, etc. But we must recognize that here, no more than elsewhere, does comparison signify or take the place of reason.

Neither materialists or spiritualists have been able to convince each other, notwithstanding the subtlety of their arguments, the superiority of intelligence, and the sincere desire for truth observed in both camps. And always for the same reason: The world agrees only (sometimes after long examination) upon those things which fall, and remain, so to say, under the observation of its senses.

And how, will at once be asked, could you say a moment ago that philosophers would agree some day upon this point; for it is especially on this question—the one primordial question among all—the existence of the soul, that you have meant to speak?

Our answer goes direct to the point:

We can have material proofs of the existence of the soul.

This is a fact leaving no doubt in our mind, and Science, when it so decides, will be able to study the third constitutive element of the Macrocosm (which is found again in the Microcosm) just as at present it studies the two other elements—*Matter* and *Energy*—which it will be able to understand far better than before.

This is what we shall endeavor to prove.



CHAPTER II.

SUMMARY: A retrospective glance.—Commateral and Abmaterial existence of Intelligence.—Intelligence is independent of Matter.—So-called Spiritualistic phenomena support this thesis.—Many great things remain for us to learn.—There is no knowledge without work.—The difference between those who think and those who reflect upon nothing.—The hour of scientific appreciation.—It has chimed for each thing, in its time.—The Procrustean bed of ideas and facts.—The time has gone by when we had to begin by proving the existence of psychical facts.—Intelligent and Scientific investigations are not lacking; wherefore we need no longer seek to convince, especially those who refuse to be convinced.

Before making an examination into the validity of a number of psychical facts observed in man, we beg the reader to pause for a moment and briefly review that which we have gone over. Now that we have reached this point of the analysis of things, we can in a glance scan the vast fields we are leaving and over whose surface we have so hurriedly passed without studying deeply their interior parts. And here, we will state once more, that this work by no means pretends to treat exhaustively the subject which occupies us,

for, after all, the ambition of the writer is merely to *cause people to think*, following in this the advice of the author of *l'Esprit des Lois* (4).

Our desire is to foster and promote thought, hoping this little book may happen to fall, as did the good seed, upon a fertile ground. For this reason we have tried to be brief, knowing that ponderous volumes in these days of steam and electricity are rarely read. And besides, as was said by Paul Louis Courier, "the best things in the world can be written on one page."

But, as we proposed, let us review in a few lines the journey we have so swiftly made: In our analysis we first summarily studied the Macrocosm. Glancing at our own planet before leaving it, we began our study of the animated Universe, starting from the Unextended Atom, and sailing into space in search of the formation and end of Worlds. As one may see, our method was inspired by the Cartesian principle: We supposed

(4) "When you treat a subject, it is not necessary to exhaust it; it is enough if you cause thought." (Montesquieu.)

the human mind seeking the secret of the Universe, a newly born intellect, a *tabula rasa*.

Then, in the second part, we endeavored to obtain an idea of the constitution of the Microcosm, first in exposing the ideas of the principal schools. We have seen that man, as well as the world, held certain principles: Firstly, Matter and Energy. This led us in the third part of our work to study comparatively the Universe and Man.

In that part we saw that besides Matter and Energy there was Intelligence in this world as well as in the human being, unless we were prepared to admit that one substance alone (if Intelligence be nothing but a product of matter), that is to say, the cerebral substance of man, is the only matter in the whole Universe that is capable of producing intellectual phenomena.

Now that our reasoning has permitted us to recognize the necessary existence of that which we have named the third principle or element in the Macrocosm and Man, it remains to prove this third principle (the first in order of importance) as free and independent in man. We may

be able to give a glimpse of the persistency of this element, that is to say, of *Conscious Intelligence*, surviving the decomposition of matter to which it found itself united under the form of the human body. In other words, to show the possibility of *abmaterial* after the *commaterial* existence. This is our aim.

It may be a bold, but not a temerarious task which we have undertaken. We shall, indeed, risk nothing now; for, having—nearly fifteen years since—written, in order to begin this demonstration, a book which has brought ostracism upon our head, we have little to fear.

We hope that no one will think that this is written in a spirit of bitterness, for we entertain none, and we fully forgive those who have thought themselves pure enough to cast the first stone at us. The truth, which now dawns, will vindicate us, and we are the better pleased because it will shine as well for its detractors of yesterday as for its friends of to-day. The philosophers who shall have defended it, when there was danger in so doing, will retire into obscurity without remembering the insults they received for its

sake, and without asking for honors where they formerly got injustice. The honors will, perhaps, belong to those who, having first repulsed the truth, will finally give it a new Latin or Greek name when at last they shall have recognized it.

The truth is this: Intelligence exists outside of matter—matter as Modern Science commonly conceives it—and while we once more assert that we are not a “Modern Spiritualist,” without heeding the theory called by that name, affirm that all psychic phenomena claimed by spiritualism are true, which, however, does not mean that they cannot, in a certain measure, be simulated by fraud and trickery.

These phenomena, therefore, help to prove our thesis, and that is what we hope to demonstrate.

It will remain to the shame of a number of our scientists that they have so persistently refused to look into facts of such importance, especially as these have challenged observation for over half a century. Their punishment will come at the end of their careers in knowing that they have missed their opportunity, having died, so-

called scientists, and yet ignoring the most important things ever given them to learn. But patience once more: The generation which is rising may have to be kept within bounds, so great will be the reaction. And we, whom these great gentlemen disdain, will defend them and say, as it was said on Mount Golgotha: "Forgive them, for they know not what they do." How could they know? Among the *acknowledgeable* excuses they will be able to make, will be: That the paltry things of common life, of their commonplace existence, were too near their eyes, so that occupying as they did the whole of their visual field, those poor myopics were prevented from seeing the things that were beyond. A mere question of optics.

Nowadays, notwithstanding the actual brilliancy of Science, no one would dare say that there are no more great discoveries to be made. In periods several centuries previous to ours, have been found men who, cognizant of the state of knowledge of their time, were not afraid to declare that they did not believe that man could

reach a loftier state of civilization or a greater store of science. But now that we have learned more, and as the tendency of true knowledge is to inform us of our relative ignorance, we shall no longer hear *Non plus ultra*, but *Excelsior!*

Let not the younger men, entering the career with all the ardency of youth, forget, however, that if great laurels are to be won, they will not be gained without struggles and dangers. It is of the new Science chiefly that one may say, it is surrounded with a rampart of cliff-like rocks.

Ardua vallatur duris sapientia scrupis.

We will insist no further on this subject, though later on will be indicated the dangers run by those who engage in the studies which we have mentioned.

We have seen and studied hundreds of facts which were so convincing that we might wonder, at the slow advance in psychology, were we not well acquainted with the minds of professional scientists. And we are tempted whenever reading works in which these questions are

treated with levity, to cry out: "Who, ye Gods, has put his heavy veil over the eyes of mortals, that they should forever confound reality with illusion and lies?

We must acknowledge that to the author has been given privileges granted to few men, but it is because having once been awakened by a most simple fact, he became eager to know and found time to seek those things which he has seen.

No good without evil, no knowledge without study. Truth must be wooed to be won, as Schopenhauer says. One must investigate and think.

To think! Therein lies the difficulty. He who does not reflect, finds that everything which he commonly sees, as perfectly natural; he is born, lives and dies without having asked himself why anything exists. On the other hand, the least thing happening out of the common, stupefies him.

The man who thinks, on the contrary, takes interest in apparently insignificant objects. The least insect, the tiniest blade of grass, the smallest cell of a plant or of the animal body are

motives eliciting his reflection and admiration. These two varieties of men are found as well among scientists as among stone-breakers.

The things which have occurred up to date in the scientific world in regard to the facts of which we intend speaking (facts of lucid somnambulism, of telepathy, sight and hearing at a distance, or clairvoyance and clairaudience, mental suggestion, and of spiritualistic phenomenal-ity) remind us of the microscope that was presented to Pope Leo X at the beginning of the XVIth century (1520). The instrument was considered a very curious one, capable of amusing children, but no one had an idea of all the uses that would be made of it until three hundred years later. The *Hour of Scientific Appreciation* had not yet chimed.

We respectfully beg leave to announce to the gentlemen of the Universities, Academies and other Scientific Societies that the hour of appreciation has come for the phenomena which we are studying in this analysis of things, notwithstanding the zeal with which some of them have turned

back the hands of the clock. That hour has arrived at the proper time for every discovery, it is a law; the application of this law is to be made anew.

* * *

The past holds many instructive facts; have not all great discoveries met an opposition all the more serious in that they shocked preconceived ideas the more? Therefore, be prudent with your *a priori* negations. But, no, history after all does not seem to have taught men much. For instance, a few years ago the author made an observation which seemed to him to be one of interest, viz.: A Parisian publisher brought out at short intervals three books. The first, was upon hypnotic suggestion, the second treated of mental suggestion and the last one was a treatise on psychic phenomena. These three books were written by scientists and physicians. When the first book (Hypnotic Suggestion) appeared in the scientific world it met with a large number of skeptics. (We believe that they are pretty nearly all converted now.) The author of this book, which contained some very curious experi-

ments on hypnotism, did not believe in the *mental suggestion*, which was sustained with proofs in its favor by the author of the second volume. On the other hand, this last book contained passages that expressed sorrow for the *loss to science* of a brother scientist (the author of the third contribution), who had not seen that all spiritualistic phenomena are nothing but fraud or cases of mental suggestion in which the *Inconscient* or subliminal consciousness of the medium played a great part! We will say nothing of the third book, whose author, in certain places, has, perhaps, not shown himself to have been a better critic than his colleagues, and that for reasons which the reader may guess. How well this observation shows the tendency of the human mind! We make unto ourselves a frame, which we think is perfect, and everything we find that does not fit it, is stretched or cut down, a veritable Procrustean bed for other people's ideas and for facts which belong to everybody!

Here we end observations, in which we hope the reader will find no ill-feeling. We are merely observing, that is all.

In the pages which follow it is not our intention to speak of any new experiments, although since the publication of our first book we have witnessed many interesting psychic phenomena. For this reason it seems useless to try and demonstrate elements and facts of small importance, which to-day are to us of so little interest, hence we will not trifle any more time in reviewing the subject. We might as well be asked to teach the alphabet in a village school, and, moreover, the time has gone by when it was necessary to begin by proving the existence of psychological facts (5). As there is no lack of intelligent and well-instructed investigators nowadays (as one may see in the Proceedings of the *Society for Psychical Research*), it is not necessary to try and convince those who say: "I wouldn't believe it if I saw it!" These good people will always find something left for them to glean when once they make up their minds to follow, *pède claudo*, the irresistible movement which has occurred, and whose torrent is about to submerge modern philoso-

(5) We may add that it is our intention to write a special account of our experiments.

phies (6.) Therefore, for the study of the question *ab ovo* we refer the reader to our preceding work.

Let us now study the nature of things in man.

(6) We may say here that the number of those who are interested in these matters is growing so fast that the "offer" has become considerably smaller than the "demand"—that is, the "mediums" cannot suffice to give sittings to those eager to witness psychic phenomena. Hence, the apparition of a host of fraudulent mediums of whom the public had better beware.



CHAPTER III.

A STUDY OF THE PSYCHICAL CONSTITUTION OF MAN.

SUMMARY: The genesis of man is a microscopical action.—It is a simple fact, but a great one.—The hypotheses of the pre-existence and of the non-pre-existence of the mind over the body.—The hypothesis of the parallel formation of the mind and the body is an injustice.—One can no more see Energy than one can see Intelligence; nothing but their effects are perceived.—How can we demonstrate the independence of the mind?—An unknown thing supposed to be known.—A certain part of the faculties of the mind is immobilized within certain functions which are inferior to those of Intelligence.—The mechanism of the action of the mind upon the nervous cells.—The polyzoism of Durand de Gros.—Facts which show that the mind may receive communications from other sources than the ordinary ones of the organs.—Dreams.

Two microscopical elements: A cell furnished with a vibrating cilium, the male element, and another cell of globular form, the female element; two points that are nearly mathematical, meet and man is engendered!

The globular cell at once undergoes a transformation; it becomes grafted upon a certain

point, and divides into a multitude of other cells which are to become the organs of a human body.

This meeting of two cells, produced by two different beings in order to form a third, is a great fact.

About this fact *matter* and *energy* will accumulate.

But, admitting the existence as well as the universality of intelligence, will this latter "breathe" upon matter at the same time and *pari passu* with the accumulation of energy upon it?

Or else, if we refer to the Egyptian, Chaldean and Hindoo schools from which their inspiration was gathered by Pythagoras, the Neo-Platonicians, the Kabbalists, the Theosophists, and even the "spirits" of modern spiritualists, shall we admit that the mind is pre-existent and that it has already inhabited several bodies, lived several lives?

In the first case, the mind detaching itself gradually, from the *impersonal intelligence* (?) would become united to matter in a greater or lesser proportion, according to the value and the capacity of the cerebral recipient. Personality

would group itself around the Great Fact of which we have just spoken, varying individually according to chance, guided arbitrarily (we nearly said unjustly) in its formation, by heredity, atavism, social condition, surroundings, education and a thousand other casual circumstances which are not of our creating and which concur to attenuate in so large a measure our personal responsibility.

Those who maintain that there is no such thing as chance, cannot admit such a hypothesis, and would probably adopt more willingly the second one: *Pre-Existence of the Emanated and Personified Intelligence* which lives alternately in commaterial and in abmaterial states. The unequalness of fate towards men might thus be explained by former merits and demerits. But if the mind be pre-existent, at what moment does this intellectual globule, virtually gifted with all its future potentialities, unite itself with Matter-Energy? Is it after the complete segmentation of the ovule, the distinct formation of the different blastodermic leaflets, the brain being then localized in its elements of formation? Does not

this union occur progressively? In any case, it must be long before birth that this "spiritualization" of matter must begin. The spirit, thus enclosed within its triple fleshy jail, would "float upon the waters" for over three times three lunar cycles, ere it reappears to the light of day, where it will remain still *asleep* for about three years, at least during *waking* hours.

* * *

However this may be, man is now an accomplished fact; let us study him.

What is first seen in this man—as in the examination of the Macrocosm—is matter, that is to say, his body. This body moves under the stimulus of varied forces proceeding from energy. This force cannot be seen, any more than we can see that which animates the world: We see but its effects. The same is true of Intelligence. Is there such a thing as an effect without a cause?

For our own part we have some reason to believe that the mind, conscious of its individuality, pre-exists to the formation of the body's matter, but we think the time has not yet come for the

exposé of these reasons. (7.) We will have, first, to furnish the scientific proof of the value of the process through which we have obtained our information. This we trust to be able to do ere long.

(7) How is it that we do not recollect our anterior lives? was objected to Pythagoras. "Some of us do," he answered, and he told what he had been in preceding existences. To this objection might be answered, that in case we had lived several previous lives it would not be surprising if we lost all recollection of them, since it is difficult for us to remember, even after a short lapse of time, the events of our present life, and that one recalls but a few moments after, absolutely nothing of what has been seen, done or heard during a somnambulistic state. We might add that the somnambulistic state in which we may remember not only the details of our supraliminal life, but also some facts which seem to never have come out of our sub-conscious or subliminal self, is superior, under some of its aspects, to the ordinary supraliminal, and that when we return to the commaterial condition, when we "go down" into matter, we drink, according to the symbolical language of the ancients, the waters of Lethe. But, this is not an argument. The best reason why things should be as Pythagoras taught them is, that it is a law, which our ignorance of its existence does not prevent from existing. It remains with us to endeavor to find out and demonstrate the reality of that law.

And even supposing that things are otherwise, and that individualized intelligence is formed by a gradual process, during the course of which, matter attracts its elements from Impersonified Intelligence or "Being," what we must demonstrate is that, once formed, it is, in a certain measure, independent of the nervous matter during life, and that it persists after the disappearance of the body.

We know very well that for many well-informed men this *experimental* demonstration no longer needs to be made. And we do not refer to believers, but to men who *know* and only believe in reason as controlled by observations furnished through the evidence of their senses. But it is not for them that we are writing; the form of this work will leave no doubt in their minds on that point.

As to those who have not yet had the leisure or occasion to acquire this knowledge, we will ask them to grant one thing: As in Algebra we will suppose the unknown to be known. In other words, we will conditionally admit the existence of the soul, mind, spirit, intelligence, or

whatever name we may give to that so-called spiritual entity. Let us then suppose its existence, and from that hypothesis let us seek for the part played by it in the human being.

In the ordinary state, the spirit, intimately incorporated with matter, may be considered as being deprived of the major part of its superior faculties. A part of these faculties is, as it were, alienated in behalf of certain functions which they have to fulfill on the animic, instinctive and vegetative plane of the commaterial being. We are not in a way wholly within ourselves. Our spirit has no more communication with the spiritual world, and frequently is but poorly served by its organs. This may explain how certain somnambulistic subjects are far more "lucid" in the hypnotic state, which is an incipient abmaterial condition, a beginning of the disengagement of that better part of ourselves, which in these later days has been termed the *Inconscient*, subconscious, or subliminal.

However this may be, the mind, which is normally adapted for intelligent functions, uses as

best it can the energy which, in a continuously unstable state of equilibrium, exists in the organs of manifestation of intelligence. Let us explain: The less a composite body is chemically stable, the less strong need be the influence, the force required to cause a modification in its composition. The substance that serves to form the cerebral cells is in such a condition. The fluidic force created by a cerebral cell is of a peculiar nature, reminding us under some of its aspects, as we have already said, of the electric fluid. In order to produce this nervous exciting fluid which carries the mandates of Will to the peripheral organs, the cell must in some way be polarized in a certain direction. As the mind in itself is unable to act upon matter, and since, for that purpose, it is obliged to resort to energy, its action is made easier through the nature of a substance of constantly varying composition, such as is the organized and *agencied* matter, so as to produce, with a minimum of influence, a sort of microscopical torpedo, a little discharge of nervous fluid which will follow a determined direction that will always be the same in the

normal state. Of course, this is only hypothetical, and we regret to say that the most recent investigations bearing on nervous cells (Golgi, Ramon y Cajal and others) have not elucidated the question. In short, the *mind must act upon organized matter by means of animic energy.*

We have tried to make clear that a portion of the faculties of the spirit, or mind, are immobilized in inferior functions other than those of intelligence: Cellular nutrition, circulation of the blood, and of the permanent nervous current, reflexes, instincts, etc. These faculties are utilized to produce excitation in different, apparently *automotor* centres, such as the cerebral, cerebellar, bulbar, medullar and sympathetic, whose relative independence, made more evident by certain pathological and psychical states, has caused it to be said that man was composed of a collectivity of *Egos*, which are hierarchically co-ordinated, but which have, each within itself, the characteristics and essential attributes of the individual animal. This conception, to which its originator, Durand de Gros (Dr. Philips), a close observer, gave the name of polyzoism, presented

itself to that author after some very delicate experiments of hypnotism and suggestion.

If we admit the independence of the intellectual principle, one may conceive how, after a certain part of the cerebral substance has been destroyed, altered or diseased, the mind can no longer act upon this vacant department or transmit, through its medium, the orders of *will* to organs which are usually excited by the *torpedo cells* which are stilled or dead. But in many cases of cerebral lesion, where the patient survives, a more or less perfect substitution becomes established, and one may admit, at such times, that the mind causes its will to be obeyed by other centres (memory, speech, motion, etc.) and transmits its orders by a circuitous, indirect and unusual route. This is especially the case when the destruction of cerebral organs occurs slowly. The cases of complicated aphasia, agraphia, alexia from which a patient may recover by learning again to talk, read, write, etc., with the right hemisphere *or another part of his brain*, although the primary lesions of Broca's convolution and

other centres persist; the integrity of all the functions, notwithstanding the atrophy of one cerebral hemisphere, are facts which do not in the least oppose, but, on the contrary, uphold, the thesis which we are presenting.

Until now we have not, perhaps, advanced any very forcible argument which will induce the uninitiated reader to admit without contesting the existence of an independent *spirit*, and such reasonings as are found in the preceding pages have been presented more than once with greater development and effort in order to carry with them the greater conviction. That we have advanced them at all, is solely to proceed methodically, for we place our expectations more in experimentation than in reasoning, *per se*, and discussion. Psychological facts are about to give us a more complete demonstration. We will present them (if we may be allowed the expression) in their order of increasing intensity.

Let us first examine instances in which the mind, in condition nearly normal, perceives the existence of actions remote in space. For instance, in dreams: We have all often heard

the narration of dreams that are like the reality of some actual event (or even one possible to occur in the future, but we intend putting aside this question of the future). We could quote from many authors innumerable cases of this kind, but will limit ourselves to a few instances which have come under our personal observation, referring the reader for further example to the Proceedings of the Society for Psychical Research.

A lady with whom the author is acquainted and who is willing to vouch for that which follows, had this dream: When she was twenty years old Mrs. C. was living in A——, a sea-board town. She had a dream, the principal subject of which was a young man, who sought to marry her. The face of this young man, whom she did not know, inspired her with a certain repugnance, and she tried in her dream to avoid him. When she awoke the dream was vividly recalled, as, she says, are most of her dreams. During the forenoon of the following day, having to go out, the young lady followed a street which led to the harbor; there she sud-

denly saw at the door of a brewer's establishment the self-same face of the young man who had wooed her in her dream. She was faint from surprise, and had to exert all her will power to avoid falling. Information having been sought from the brewer, who was an acquaintance of the family of the percipient, it was learned that the young man had come for the first time from beyond the sea, and had only landed that very morning. He had taken residence at the brewer's, who was a relative, and with whom he expected to become associated in business. Later the young man, having possibly heard of the dream, and it becoming an indirect suggestion to him, asked the young lady's hand in marriage; but she, decidedly under a suggestion from the dream which haunted her whenever she happened to see the subject of it, declined the offer.

Facts of this kind are so extremely numerous that one cannot continuously repeat that trite expression, "Coincidence," which has but the advantage of relieving people from looking for a better explanation. This advantage, we acknowl-

edge, is not adequate to our demand, and we are ill disposed to be content or satisfied with it.

When we come to study somnambulism we will see what explanations can be given of these phenomena.

In another circumstance a member of our own family had a dream which is sufficiently interesting to deserve being reported. In 1886, in Paris, steps were being taken to obtain for a friend a position as director of a special school. Our protégé was in his specialty a very deserving and learned man, as proved by the services he has since rendered; hence every effort was made in his behalf. The support of nearly all the chiefs of the Government office, on which the position depended, had been gained, as well as the approval of the Secretary of State, to whom the postulant had been strongly recommended by two or three members of the Legislature. In short, we were awaiting nothing but the publication of his nomination through the *Journal Officiel*, when one morning a letter was received from Mme. R., a relative who lived in the country, who was a

great friend of the candidate's wife. At the end of her letter she said: "Tell me something about Mr. X. (the candidate). Last night in a dream I was *much annoyed* (she awakened crying, she wrote us since) because he had failed in his endeavors to secure his position."

Directly after finishing reading this sentence, but without paying much attention to it, our friend was announced and entered the room at once, his face showing unmistakable signs of disappointment. He had come to deliver a letter from the Minister's office in which he was informed "that he was not accepted as candidate for the position then open, but that he might be considered at the next vacancy." Our relative's letter was shown to Mr. X., who was much astonished at it.

Fortunately, after examination of the credentials of the candidates for the position, this decision was reversed a few weeks later, and Mr. X. filled satisfactorily the place until his death, which occurred in 1897.

Another coincidence? Perhaps, but that importunate coincidence occurs wonderfully often.

Lastly, before finishing with these examples of events perceived in dreams, the recital of which has come directly to us, we will cite the following one, which proves that distance exists not for the mind during our dreams, or, at least, some of our dreams, which we can commonly very well *distinguish* from others through a something which we feel, but cannot clearly define. The following is a case which occurred in an American family, with whom we are acquainted:

One of Mr. J.'s sons was, in 1871, in Germany, at the University of Tubingen, for the purpose of completing his studies. His family in New York had just received favorable reports from him, when the next night Mrs. J. awoke in tears after dreaming that she had seen her son in danger of death. Seized with anxiety, she struck a light, and began wondering how she could obtain immediate news from so great a distance. Her daughter, at this point, entered her room, coming for the purpose of telling her mother that she had in a dream just seen her brother in a suffering condition. The mother and daughter had simultaneously had the same dream, which noth-

ing in the conservation of the previous evening could have induced. Still more interesting is the fact that young Mr. J. was really ill at that time in Tubingen. Luckily the strength of youth got the better of his illness, and he was able to soon return to New York.

Must we accept the opinion, according to which the mind partly rids itself of the body during sleep, and receives from afar impressions of things whose vibrations are carried along by the ether?

CHAPTER IV.

SUMMARY: The general ignorance about hypnotism.—If people knew better how to make use of that state they would obtain wonderful results.—But there is great danger in experimenting, in the actual state of ignorance of the laws which rule the various constituting principles of man.—The force emitted by the human body under the influence of will, and acting at a distance.—Experiments upon the transmission of thought and sight through space.—Different states or degrees of Hypnosis.—These conditions are but phases of the gradual tendency towards the dissociation of the person.—Theory of sight, hearing, etc., at a distance.—Phantasma of the living.—A very interesting and instructive observation of the dissociation of the person.

Those who have interested themselves with hypnotism, whether physicians or not, and who ignore the powerful means of investigation they have in their hands, are in a great majority.

Through the medium of hypnotism, or rather of hypno-magnetism and suggestion, aided by other external agencies, most wonderful results can be obtained. This cannot be done with all subjects and without a special form of dietetics, for certain necessary and determined conditions

must be reached. By *dietetics*, we understand not only an alimentary regimen, of a special nature and well known, but also a particular method of breathing, sleeping, thinking and dispensing one's affections. As the description of these modes of procedure does not enter within the bounds of this work, we will drop the subject. Let it suffice to say that hypnotists and magnetists have in their hands equally redoubtable instruments, double-edged weapons which fortunately they scarcely ever know how to use thoroughly. For this reason, though our observations are doubtless most important ones, we will only relate a few of them.

Those who hypnotize ordinarily await no formal authorization from their subjects. This is because they do not know all the possible consequences of their action; we, of course, refer to simple experiments, though we might hold a certain reserve when pseudo-sleep is brought on for therapeutical purposes. But let all remember: When hypno-magnetism shall be better known, no subject will ever be placed under its influence

without a preliminary conscious permission. In regard to this, we must say that the few who are initiated in the mysteries of Ceres-Hypnotita cannot repress their indignation and pity when they see at present the advertisements of some "Professor" of any style of "humbuggery," who, with the full permission of the law, holds sittings of Magnetism or Hypnotism. Unconsciousness protecting the unconscious! It were as well that children were allowed to play with dynamite.

However this may be, hypno-magnetism enables us to place in evidence the independence, or, if we prefer, the action without the human body, first of a particular force, a higher form of energy, and secondly of an intelligence which, in certain cases, directs this force.

Let us, in a hypno-magnetic experiment, examine the active subject, the operator. Even without his own knowledge, the latter more or less influences the passive subject by means of a force which radiates from him like a sort of aura, and which is nothing but the vibratory wave of his animic force, produced under his will and

thought, and acting through suggestioning in some way the passive subject, as does also his speech and attitude. The existence of this force, or fluid, as some call it, has been known from time immemorial, and Dr. Barety's work (8), among others, leaves no doubt as to its reality. We have, for our own edification, repeated a number of Dr. Barety's experiments upon a very sensitive subject, though the latter was gifted rather in the line of those phenomena which are of the intellectual order.

We will not stop to speak, regarding suggestion, of those scenes which are related at length in the books that have been written on hypnotism; all that is too simple, and would, if we dwelt upon it, cause the present work to become a sort of anachronism. Before long these facts will become elementary classical relations. At present they could help us but little in the demonstration which we propose making, though they serve to put in evidence the ease with which the human mind can be illuded when it finds itself at the incipient stage of a certain condition.

(8) *Magnétisme Animal*. Paris, 1887.

It is to-day an acquired fact, for all those who study this question, that a *force*, which can very easily be put in evidence, sallies forth and acts at a distance, according to the will of the active subject or operator; or still, when we come to the passive subject, this force manifests itself in the percipient under the influence of a suggested order; or again, spontaneously in the "mediums" during a passive, conscious or unconscious state. For instance, one may with some hypnotizable subjects make the following experiment, which we shall call the experiment of Horace Pelletier, inasmuch as it was made for the first time by that experimenter under the following conditions: If one, or better, several sensitive subjects, having their hands placed over a jar of water, are ordered (verbal suggestion) to cause the liquid to move as if it were boiling, *without touching it*, one may after a relatively short time (it is useless to wait more than half an hour at each sitting) see the water beginning to ripple at first, and then moving as if a small fish were disturbing it by playful evolutions; then it begins to bubble as if it were boiling, so that sometimes it overflows and

partly runs out of the jar. This is a phenomenon which the Fakirs of India easily determine by their mere presence or by the simple "laying on of hands" over the liquid. M. Pelletier, who has frequently written to us of this experiment, has not mentioned the fact that the subjects sometimes complain, as soon as the experiment is begun, of a pain in the arms and hands; it is an observation made in our own experiments. This same painful sensation is complained of by those who produce direct handwriting between slates. But these facts are of little import, and can hardly serve for the demonstration we intend making. The transmission of thought is more useful. For that purpose we have experimented upon subjects who were sensitive to action at a distance, or to what has recently been called mental suggestion. The expression, *Telepathy*, comprises also mental suggestion, the existence of which is now well established. For instance, an experiment which we have tried frequently has been to say to a sleeping subject: "You will awaken when you feel that I want you to awaken;" then the author, busying himself in taking notes of the

sitting which he had just had with the hypno-magnetized subject, would conceal himself behind a case of books, so that the subject, who *could see* (notwithstanding a thick bandage over the eyes), perceived nothing upon the hypnotist's countenance that could reveal the fact that he wanted to awaken him.

At a given moment, sometimes in the midst, sometimes at the end of our proceedings, we would begin to will that the subject should awaken; if at writing we had been employed, we would continue moving the pen over the paper, tracing such words, for instance, as "I will that you awaken; you must awaken; now wake up!" or even other sentences irrelative to the situation, and the awakening would take place within from forty to sixty seconds. At other times when the subject had awakened we would begin to write and again *will* that the hypnosis should occur once more. Whenever this latter experiment was successful it was only partially so, for we would very soon hear these words: "Why should you wish me to fall asleep again?" uttered by the subject, who would then arise, move and

at the same time employ a certain means which we had shown him of resisting the magnetic sleep in case any one ever wanted to put him under an influence against his will.

Notwithstanding their interest, we will not dwell longer on these facts, which the reader can study in the special treatises that have been written with regard to them. As for the explanation to be given of them, it is easy to deduct it from the theory exposed in these very essays, upon the constitution of the human being. Moreover, before concluding, we will endeavor to give an explanatory theory of these phenomena.

* * *

The ordinary subjects, through whom the hypnotic pseudo-sleep is studied, pass through a variety of phases which are far from succeeding one another as regularly as the authors describe them as doing. Yet these phases, or *states*, commonly succeed one another in the following order :

1. The *state of Charm* (Liébeault), or of *credulity* (de Rochas) or "*état Second.*"
2. The *cataleptic*.
3. The *somnambulistic*.
4. The *lethargic*.

They are, so to speak, the classical states obtained by suggestion or the fixation of the eyes, or by both processes combined.

If other means are employed, and among them the special system of dietetics which we mentioned before, as well as magnetic passes, and a firm will, as strongly exteriorized as possible (which also requires some training to obtain), one soon acquires the proof that the above mentioned states are but a pathway toward a condition of *dissociation*, not only of the personality, but of the person itself. This *state*, which may be produced in a very short time after the subjects have been trained to it, is preceded by a fifth stage which follows the fourth (*i. e.*, lethargic). This fifth is known to certain magnetizers and termed by them *lucid somnambulism*. A sixth state may be called the *ecstatic*. Then comes that which we call the *state of dissociation*. In this last stage the appearance of the subjects may vary according to the individual. Some are plunged in a state of apparent death; others seem to be petrified, their eyes being kept wide open and the pupils being extraordinarily dilated and fixed.

The last named sometimes speak of subjects, things and scenes which appear to and sometimes actually have their existence at a variable distance. It is not always possible to ascertain whether they tell the truth; their descriptions may be absolutely imaginary, or contain errors as to time and locality; in other instances, notwithstanding, we find that their descriptions are *absolutely correct*, even when the deed *which is seen* takes place numbers of miles distant! This state might be called that of *speaking ecstasy*.

Those who are in a state of apparent death seldom recollect in a *spontaneous* manner the things they have felt or seen.

This last stage could not be forced any further without great danger; and we will add that it is not safe to leave the subject too long in it. For the state that would follow would be one of complete and final dissociation. The mind, having broken the animic thread which was to bring it back to the body, after having attracted from without too great a quantity of *vital energy*, would find itself liberated forever, perhaps with great advantage to itself, but certainly, to the deep

and terrible embarrassment of the temerarious experimenter, who had ventured without soundings in an unexplored and rocky sea.

But when the operation takes place under a safe hand, this is what may be observed: The subject, after having rapidly passed through the various stages we have mentioned, begins that of dissociation. The mind escapes from its bonds, together with a certain amount of vital or animic energy, and places itself in communication with external things. At first, this loosening of bonds consists in a simple radiation about the body, and at this stage the subjects are able to read by means of their hands, forehead, epigastrium, feet, etc. They may cause objects to move around them without apparent contact or manifest sensitiveness outside of the body (9). In one word, the "openings of the lantern" are not only the eyes, the ears or the other organs of special sense, but one *unique sense* enlightens itself through all the pores of the body. Then there is no more brain for perception and thought, but perception

(9) *Vide de Rochas, Extériorisation de la Motricité; and Extériorisation de la Sensibilité. Paris.*

and thought are everywhere. In this state the subject can, by means of the ambient ether whose vibrations cause a vibration in unison with his exteriorized animic ether, understand a multitude of past, present and even future events.

We do not wish to dwell too long on these matters, neither will we endeavor to accumulate proofs of them. Proofs have already been furnished to a goodly number of scientists, and one has only to peruse the periodicals devoted to psychical subjects, and especially the S. P. R.'s Proceedings, to become familiar with their importance. However, if, in the name of conservatism or neophobia, these data were objected to as anti-scientific, we might recall that Laplace, an agnostic *avant la lettre*, who certainly was one of the most positive scientists of his time, seemed to have had an intimation of the possibility of the prevision of the future, as may be judged by the following remarks: "An intelligence," he writes, "which for a given moment should know all the forces by which nature is animated and the respective situation of the beings which compose it, and which were vast enough to subject these data

to analysis, would embrace in the same formula the movements of the greatest bodies in the Universe and those of the smallest atom; nothing would be uncertain for it, and the *future as well as the past would be present before its eyes*" (1).

Let us analyze Laplace's thought. If we are able to thoroughly penetrate the meaning of what precedes we shall see that this great and profound astronomer and mathematician who repulsed the "Hypothesis" of a Personal God (2) conceived the Universe exactly in the same manner as all the great Pantheists, and by no means disputed the idea of the présence of ineffable intelligence, any more than that of Energy (*anima mundi*) in the totality of things. He was not unaware that a vibration having once been produced, the causes, which had determined it, existed not only in all time past, but he knew also this vibration to be marked on the future, where Intelligence, whereof he speaks, might foresee it

(1) *Théorie Analytique des Probabilités. Introduction.*

(2) "Sire, we are in no need of such an hypothesis," he answered Napoleon, who had asked him what rôle he attributed to God.

through an exact knowledge of past and present ethereal waves of which it is naught but the forced consequence.

And, as writes an able mathematician whom we have already quoted: "This condition applies not only to those luminous vibrations which have birth at the surface of bodies, or at a very slight depth, but also to vibrations of all kinds which are produced within their mass; those, for instance, which our most secret thoughts impress upon the molecules forming the brain; all those movements are felt and kept by the Universe" (3).

Is there any need of adding that when an intelligence disengages itself from matter, in which it is provisionally imprisoned, sufficiently to receive the impression of vibrations transmitted by the Ether, it is conceivable that this partly liberated intelligence may be able to perceive, in a manner more or less clear, the modifications impressed on that universal "fluid" by the external influences

(3) E. Jouffret. *Op. cit.*

including the thought which in other persons puts in motion the molecules of which our brain is formed? Thus is mental suggestion explained, as are the transmission of thought and sight (clairvoyance) as well as hearing (clairaudience) at a distance and other forms of telepathy. We fancy that it is not useless to insist upon this fact, that even the slightest degree of hypnosis is a beginning of dissociation which in some way is at first internal. Both spirit and vital energy are concentrated internally and leave (at least in a certain measure) the periphery. Therefore we see the first state of hypno-magnetism signalled by anæsthesia of the skin and mucous surfaces. We have thus been able, in nervous young women who were taken with incoercible attacks of nausea at the mere sight of the laryngoscopic mirror, to make most prolonged and complete examinations while hypno-magnetized, and to introduce instruments below the vocal cords, without causing the slightest reflex. In some subjects, from the first moments of pseudo-sleep, *abmaterialization* is produced, and, simultaneously, the external expansion of the *sensorium verum*, of the unique

sense, is effected. In one of our experiments, at the first sitting, a young hypnotized subject was able to tell the color of two different objects, two sheets of paper, one white, the other blue, which were placed on the top of her head, while her eyes were closed and the eyeballs turned upward. The subject had her back turned toward our desk, from the drawer of which we took these objects without allowing them to pass before her face. At the second sitting we held a watch over the top of her head; after a few seconds of hesitation she told the time exact. Knowing the faculty which hypnotized persons sometimes possess for a quick sense of time, we had retarded the watch twenty minutes. After a few days this subject (1) was able to read, although blindfolded, in

(1) A well-known physician of New York, to whom we presented this subject, was so deeply impressed by what he saw that he spontaneously wrote us the following letter:

“228 West 34th Street,

“New York, July 20th, 1889.

“My Dear Doctor:

“It is with the greatest pleasure that I send you—although unasked for—the following description of

the same manner as did a young woman whom we will mention later.

These experiments are beginning to reveal to us facts which are of the utmost importance. They prove at least that sensory phenomena may be independent of the special organs of sense through which they are normally transmitted; the *nihil in intellectu quod non prius fuerit in sensu*, of Zeno (of Citium) and of Aristotle, may now be discussed from new standpoints.

Although it has not been our intention in this an experiment which you kindly showed me yesterday.

"You hypnotized a young girl of about eighteen, and I ascertained that her eyes were strongly attracted towards the median line and upwards in a most exaggerated state of temporary converging strabismus.

"Afterwards, you placed on her closed lids thick cotton pads, and on those, as an additional precaution, you tied a well folded silk handkerchief. The whole prevented her, I am satisfied, of absolutely seeing anything normally.

"Then I chose a volume from among the numerous books accumulated on your desk and book stand, purposely selecting one of a size and cover similar to most of the others. I placed this book on the head of

work to give preponderance to our own experiments, yet we cannot refrain from mentioning one made in Paris in April, 1887, which we repeated on various occasions with marked success, notably at a special meeting of a club at which about forty friends of the author, physicians, engineers, literary and other learned men, principally skeptics, were present. The author was a member of the club, and it might be mentioned that his experiments followed a lecture by M. Yves Guyot, ex-Secretary of State for Public

the girl, who, after a few moments' hesitation, at my request read correctly the title printed on the cover. The experiment was tried again with a journal picked up among others, and met with a complete success. At the same seance, several book titles and papers were read in the same manner.

"During these experiments I remained seated near the subject, and I am convinced that it would have been impossible for her to be cognizant of what she read, otherwise than through the faculty heretofore unknown to me, and of which I witnessed the effects.

"If you deem this letter of any import, I gladly authorize you to use it according to your pleasure.

"Yours sincerely,

GEORGE G. VAN SCHAICK, M. D."

Works, who discoursed on the suppression of "octroi" (City Custom duties). A relation of the experiment was published in a provincial paper, for which it was written by one of the witnesses (4).

The subject experimented with was a young woman, of Jewish origin, about twenty years of age. Once asleep and in an intermediary state of abmaterialization, which was neither lethargy nor speaking ecstasis, but rather that which professional magnetizers call lucid somnambulism, we placed a roll of cotton over each of her eyes, and then a large thick napkin was folded and bound over the eyes and around the head.

The first time we tried this experiment, some thirteen years ago, we were considerably astonished at its success, for at that time, we must confess, we were not possessed with the knowledge which a long series of experiments, and longer course of serious studies, have since given us in this matter.

We took from our library the first book falling

(4) *L'Eclaireur du Berry*, published at Issoudun (Indre), number of April 28th, 1887.

under our hand, and opened it over the subject's head, the cover uppermost. Without knowing at what page it had opened, we held the printed matter at perhaps a couple of centimetres above the head of the hypno-magnetized young woman. We then ordered the subject to read the first line of the page that was to her left; after a moment's waiting, she exclaimed: "Ah, yes; I see. Wait a moment." Then she continued: "L'identité ramène encore à l'unité, car si l'âme. . . ." She stopped and then said again: "I cannot read more. It is enough; it tires me." We acceded to her inclination, without insisting further, and turning to the book (it was a volume on philosophy) found that the first line, minus two words, had been correctly seen and read by the *abmaterialized Invisible* of the sleeper (5).

(5) When we say it had been *seen*, we mean, rather, *perceived*. One of our subjects in analyzing this phenomenon (we have taught her to remember, which causes her to be far more interested in our experiments) states as follows: "When I see with the top of my head, there is something like an indistinct red light, which lightens up things without changing their color. I can see you plainly with my

After tracing with chalk upon the floor a word or name the hypnotized subject, with eyes closely bandaged, could be brought in from an adjoining room, and as soon as her feet—she had on her shoes—covered the written section she would pause and unhesitatingly read without mistake, invariably adding the following appropriate reflections: "How badly it is written. It is upside down" (and she would turn around), or else: "Why, it is So and So's name, with a line drawn under it!" When she was conducted to (with bandaged eyes, as mentioned above) and placed over the word written on the floor, she was made to approach backward. Her head, she held in a somewhat forced extension, in order to convince her witnesses that it was utterly impossible for her to see, even had her bandages been imperfectly adjusted or removed. We might report a great many more facts as inter-

forehead or the anterior part of the upper portion of my body. Your eyes look as if they were made of fire. When I read with my hands the light is not so red." Much might be said in analyzing this magnificent phenomenon which has revealed many other interesting things to us.

esting as these, but one must limit oneself to the allotted line and keep within the prescribed boundary. We wished only to demonstrate that the *sensus internum* could at a given time and under given conditions enter directly in relation with the external world without resorting to the ways to which it is constrained—in ordinary life. Does this not at once lead us to admit the existence of an intelligence independent of the matter which serves it for its manifestations of the com-material state?

* * *

We have already spoken of dreams which we must admit to be different from the ordinary run of dreams, in the course of which persons and places never before seen were visited, and which time, later on, made cognizant to the percipients. There are other conditions than the dream produced during normal sleep, or a sleep that has been normally begun. Although such dreams seldom occur in a *spontaneous manner*, without preliminary training, they nevertheless exist. To those who desire to give further study

to this subject and who are interested in things pertaining to Nature, we would commend "Phantasms of the Living," a book written by Messrs. Ed. Gurney, Fred. Myers and Fr. Podmore, prominent members of the Society for Psychical Research.

Personally we have observed several facts belonging to the above cited category, notably some in which a photograph of the phantasm of a living being, left permanent proofs of the phenomena, and another from which the most complete details were obtained from the person to whom the "incident" occurred.

Since the publication of our work on Spiritism, we received innumerable documents of more or less importance. We also received letters and visits from a number of people making inquiries and relating certain incidents in their lives which they could not explain. One being especially interesting, we will relate it in substance:

Mr. H. is a tall, blond young man, about thirty years of age, and very talented as an engraver. His father was a Scotchman and his mother a

Russian. Both father and mother were gifted as "Mediums." The father in particular possessed very strong mediumistic faculties. Although this young man was born in a spiritualistic family, he had never concerned himself with Spiritualism, and had never experienced any abnormal feelings until the moment when he underwent what he called the "accident," about which he consulted us in the beginning of 1887. His story is as follows:

"A few days ago I came home in the evening at about ten o'clock, when I suddenly felt a strange sensation of lassitude which I could not explain. Nevertheless, I decided not to retire at once, and so lighted my lamp and left it upon the night table, near the bed. I took a cigar, lit it over the flame of the lamp, and after taking a few puffs at it stretched myself upon a lounge.

"No sooner had I leaned back lazily, in order to rest my head upon the cushion of the sofa, than I experienced a sensation of dizziness and vacuity, and it appeared as if the surrounding objects were all revolving around me. Suddenly I found myself transported to the middle of my room,

Being surprised at this displacement, of which I had not been conscious, I looked about me and my astonishment grew on me.

"I saw myself, lying on the sofa, resting easily and comfortably, my left hand was raised, the elbow being supported, and held my cigar, whose light I saw in the shadow cast by the lamp-shade. The first thought entertained was, that I had probably fallen asleep, and was perhaps experiencing the consequences of a dream. Nevertheless, I acknowledged to myself that I had never before had such a dream and one that seemed so realistic. I will say more: I was impressed that nothing in life had ever been so intensely real. Then, convincing myself that I had not been dreaming, suddenly the idea possessed me that I was dead. At the same time I remembered what I had heard about spirits and I imagined that I had become one. All that I had learnt on this matter unfolded itself at great length to my mind's eye, and in much less time than it takes to recall it. At the time, I remember well, I was then consumed with a feeling akin to anxiety and regret about the things left unfinished and

undone; my life appeared to me as a sort of formula.

"I drew toward myself, or rather toward the body, which I already thought had become my corpse. Then, something claimed my attention which at first I did not comprehend. I saw myself breathing, but, more than that, I saw myself internally, and noted that my heart was beating slowly and feebly, though with regularity. I saw my blood, red, and surging through large vessels. At this moment I realized that there must have been some peculiar faintness or syncope. Yet, I reasoned, persons thus affected have no recollection of what occurred to them during their attack. And then I feared that I would remember nothing when I should awake.

"Feeling rather more assured, I cast my eyes about me, wondering how long this condition would last; I troubled no more about my body, *the other self*, still resting on the couch. I looked at my lamp which was burning on silently and thinking that it was dangerously near the bed and might set on fire the curtains, I stretched my hand to trim the ratchet-wheel, in order to

put out the light; but at this point another surprise awaited me. I could feel the wheel with its milled edge, perfectly well. I perceived each one of its markings, but, manipulate it as I would, there seemed to be a cessation of power, and my fingers remained absolutely unable to turn the wheel. An examination of self was next made, and I saw that, although I could pass my hand through myself, I could still feel my body, which appeared to me (if memory serves me well) to be robed in white. I then placed myself before my mirror in front of the chimney. Instead of seeing my reflected image, I was conscious that my sight extended at will and could penetrate the wall. The posterior aspect of the pictures and articles of furniture in my neighbor's room became visible to me; I saw the interior of his apartment. I realized that there was no light in his room, yet, I saw everything distinctly through the medium of a ray of light issuing from my epigastrium.

"It occurred to me to visit this room, although I was unacquainted with my neighbor, who was not in Paris at that time. The moment I desired

to go, I felt myself being transported there. In what manner? I do not know, but presumably through the wall, and with the same facility as my sight could do it. In short, I was for the first time in life, in my neighbor's apartment. I scanned the room, committed its aspect to memory and then went toward a bookcase, where I noticed particularly the titles of several works that were placed upon a shelf within range of my sight.

"To change my location, I needed only to wish it, and without the slightest effort I would find myself wherever I desired to go.

"From then, until I regained consciousness, my recollection is confused. I know that I traveled extensively, I believe, in Italy, but do not remember how I employed my time. It seemed, having lost control of myself, and being no longer master of my mind, I was carried here and there wherever thought directed me. I had not yet learned how to rule it, and before I could direct it, it would disperse me, so to speak; "la folle du logis" now, was carrying the house about with her.

"I may add, in fine, that I awoke at five o'clock in the morning, stiff and cold, on my sofa, and still held the unfinished cigar within my fingers. My light had gone out and had smoked the chimney. I arose and got into bed, but without being able to go to sleep, and directly after was shaken by a chill. At last sleep came. When I awoke, the day was well advanced.

"On the same day, by means of an innocent trick, I managed to obtain a view of my neighbor's apartment. I induced the janitor to accompany me to see if everything was in order. Through this subterfuge I gained admittance to the room visited the night before, and found the articles of furniture, the pictures, as well as the titles of the books which I had observed attentively, just as I had seen them on my nocturnal visit.

"I have been careful not to speak of this to any one, fearing that I would be looked on as insane or the prey of an hallucination."

On finishing his story Mr. H. asked: "What do you think of it, Doctor?"

At the time that Mr. H. came to tell of his experience of this "accident," we already knew that *things like these might occur*, and we knew partially, the reason for them; notwithstanding we looked at the speaker scrutinizingly, in order to see whether he was not endeavoring to dupe and mystify us; he was, however, very serious, and appeared to be quite distressed over what had happened to him. Then we explained that, in all likelihood, he was gifted with truly extraordinary faculties, and if he so wished they could easily be developed. We also explained to him the regimen necessary to be followed, which he promised would be adhered to most vigorously, and that he would come and see us again, a fortnight hence. He came, but only, unfortunately, to tell us that he was about to get married, and that he could not give himself up to any other experiment than that of conjugal life, which, as is too well known, is not favorable to the acquirement of the *autonomous faculties of ab-materialization*.

We have no doubt that if this case were placed, without preamble, before the eyes of one ignorant

of the elements of the new Psychology, of which we are only sketching an outline, he would, perhaps, regard it as interesting in several ways, and credit it in part, or else deem the whole as preposterous. We can only attempt that which is possible for us. Let the reader endeavor to convince himself. We do not ask him to believe. We have cited the occurrence as it was related to us, without adding anything to it. Is it true? As a single particular fact, we cannot have a scientific certainty on the matter; all that we know is, that generically it may be true.

Besides, as we said above, in the work of Messrs. Gurney, Myers and Podmore (*Phantasms of the Living*) the reader will find a number of interesting observations analogous to ours. It must be understood these occurrences are very rare. If they were ordinary, there would be no books written about them; at any rate, they would astonish no one. But they exist, and prove, moreover, that even during life, man may witness, as it were, the separation or dissociation of his various principles or elements. These instances will doubtless be of use to us when we

take up the study of man, considered in after life.

We advise the reading of "Phantasms of the Living," not that we accept the theory of telepathy of its authors, but because we wish the reader to cease wondering—for astonishment, like its relative, fear, is a poor adviser—as he will soon see things that are far more extraordinary. We may recommend also the study of our dear friend, Colonel de Rochas' book, *Les Forces non définies*, and the S. P. R.'s proceedings.

* * *

More than twenty years after the discovery of the composition of air by Lavoisier, the celebrated chemist, Priestley still held fast, so they say, to the phlogistical theory which had been brought out by Stahl. Many years after the brilliant discoveries of Pasteur and the labors of hundreds of his disciples, a number of physicians and surgeons still refused to admit the existence of microbes. It must be said that they are those who are content getting along on what they learned long ago. Not being willing to give

themselves the trouble of studying and experimenting, and in short, of seeing, they find an excuse for their ignorance in a sorry sort of skepticism, and consider it much easier to deny *a priori* than to gain knowledge through work.

The same thing occurs with regard to the phenomena upon which we base our endeavors to prove the existence, the independence and the survival of a conscious, intellectual principle in man.

The objection may be entered that the demonstration of the phenomena by which we intend to prove the existence of this principle, has not yet been substantiated, and that our first effort should be directed to this end. We will reply that we have already given it, not as an originator, but in following several most distinguished and incontestable scientists. We do not pretend to oblige the wilfully blind to see.

So much the worse for those who will persist in keeping their eyes closed.



CHAPTER V.

SUMMARY.—Phenomenal psychology.—It is destined to teach man his real nature.—Mediums: What are they?—Opinions of the scientist de Rochas upon certain undefined forces.—Animic, ethereal, astral and psychical forces.—Occasional visibility of Animic force.—Different varieties of abmaterializing subjects.—Usual passiveness of mediumnity.—Its impulsiveness and suggestibility.—Facts about fascination.—The yoghis, as described by an Arabic author, 600 years ago.—The yoghis of to-day.—Resurrection of a yoghi after a voluntary burial lasting for several months.—There are "miracles" in all religions.—What should the scientist's opinion be on this subject?

If there is a branch of human knowledge that has caused the most heated discussions, the most ardent controversies, which has provoked the most unjustifiable *a priori* denials, as well as the most ill-considered assertions, it is without doubt phenomenal psychology.

And yet it is within that experimental science that we are about to search for the principal basis of Future Science. It is the one that is to teach to man his true nature, at the same time that it will bring him in close relationship (as much as

will be allowed to his intelligence) with the intimate knowledge of things.

The objective phenomena of *external* Psychology may be studied by means of subjects, of individuals, gifted with a special and usually passive faculty of abmaterialization of the animic energy. These subjects are known in modern language under the name of *mediums*.

Mediums! Behold a word that lacks euphony for a number of auditory nerves. What is a medium? The name has been given to a certain category of individuals who are supposed to be able to act as intermediaries—as mediums—between the living and the dead. Indeed, it is perfectly true that some individuals, predisposed through constitution, and developed through training, may serve as intermediaries between the living and *commonly invisible intelligences*, which sometimes pretend, though not always, that they are the spirits of individuals who formerly lived the same life as ours (6.) But we think

(6) De Rochas (*op. cit.*) says at the end of his book: "After having established, by means of phenomena verified by myself or admitted by every one,

one may see in this but one side of an interesting question, as will be seen later on.

* * *

Man as we see him is an intelligence—a globule emanated from the Universal Intelligence—possessing at his service a force borrowed from Energy, which is equally universal. This force, under this form, is of a higher quality, quite akin, in all probabilities, to the superior form of energy termed by ancient scientists, *Astral Light*, *Akasa* by those of the East, of which modern science has a vague idea, and which it calls Ether (a word borrowed from physicists of the Greek School). This subtle as well as powerful force penetrates the body of all things existing. We have a store of it, seated wherever the nervous current circulates, that is to say, in the whole

the existence within the human body of a force analogous to electricity and able to radiate externally, I have followed, by means of historical testimony, the more and more powerful manifestations of this force, showing that there is between them a continuous bond, and that they sometimes serve to put us in communication with beings whose nature we ignore."

body, but, in the greatest amount and in as many reservoirs, in the blood, the cerebro spinal axis and in the great sympathetic plexuses; the solar plexus appearing, according to ancient writings and also to our own experiments, to be furnished with it in large measure. It is not without reason that the anatomists have surnamed this plexus, the *abdominal brain*.

This animic, ethereal, astral force, borrowed from Ether, remains under normal conditions, at least from appearances, to be strictly limited to the substance which composes the body, and is held in bondage by its tissues: this is a state which we propose to call *commaterial* (*cum materia*). The great majority of human beings, to speak of *genus homo* only, are commaterials. But there exist individuals who, either naturally or by means of the dietetic regimen which I have already mentioned, possess the faculty, the power of exteriorizing, that is of causing to flow out, and to extend their animic force at a distance more or less remote from their persons, and of making this force produce a variety of phenomena, viz.: physical, animic and intellectual. This

force, which in latter times, eminent scientists (7) have termed *psychical*, finds itself in an *abmaterial* state (*ab. materia*), that is to say, outside of the matter which commonly condenses and stores it up, and by which it is *animated*. Hence we call it *animic force*.

The first degree of exteriorization of animic force under the influence of will was placed in evidence by Dr. Barety, who deemed it appropriate to call it *radiating neuric force*.

When in the dark near a person whose animic force freely abmaterializes itself (for instance, in seances during which the absence of light is necessary) one may see it floating upon the garments of the individual who produces it, emanating chiefly at the level of the epigastric region or of the larger arterial trunks, under the form of vaporous and luminous matter. One may obtain an idea of this light by the illusion which it one day caused us: We had gone to see a sick man in a house in Rue Maubeuge, Paris. The patient was a professional medium, who, from

(7) See, in our work on Spiritism, references to the experiments of these scientists.

a series of experiments, performed on him, was in a state of nervous prostration. He could bear neither light nor noise, and remained lying upon his bed, where he was fretting like a child. On entering his room, at about nine in the evening, we found it almost totally dark. Suddenly, while questioning him, we saw a light upon one of his arms, which became plainly visible. The first thought that suggested itself was that a moon beam had entered the room through a half-drawn blind, but on changing our position, taking a seat between the light and the window, we found that it wrought no change in the weak radiancy projected by this lunar-seeming light. Besides, we ascertained that there was no moonlight, nor any other light, coming through the window. Other luminous points evinced themselves here and there on the surface of the patient's body, he appearing, however, to be utterly unconscious of this phenomenon. On touching these points we felt nothing abnormal, but the light would disappear on being approached. There was no phosphoric odor from whence the light issued, and, moreover, the appearance of this little luminous

cloud did not at all resemble the fumes produced in the dark by objects rubbed with phosphorus.

We have frequently been able to see in well-developed subjects, the issuing, under one form or another, of this force and its *condensation in full daylight* (8). We could not characterize its appearance better than by comparing it to the *vesicular state* which precedes the liquefaction of carbonic acid gas liquefied under pressure in a glass tube. Here we must say (not that we want to establish any comparison, since gas becomes heated by pressure) that when that force is produced from the bodies of subjects, one experiences, especially in summer or in a warm atmosphere, a decided sensation of coolness. It is a phenomenon which we have already mentioned in previous writings (9).

But the mediums are not the only ones who can develop and exteriorize this force; other

(8) On one occasion we and two other persons saw a hand moving over our chest.

(9) Author. *Op. cit.*

exteriorizing agents may exist, really do exist and are far superior to mediums. Only contrarily to the latter they allow no foreign influence to direct their "astral" body, that is to say, their exteriorizable animic force. It is their own spirit which directs it. The spiritualistic medium, on the other hand, is often the plaything, or at least the instrument, of inferior and even very baneful occult influences; for our part, we have seen striking examples of this. Being an essentially passive being, the medium is not only directed by foreign influences, good, bad or indifferent, but he is exposed to receive suggestions from the minds of the skeptical witnesses of his performances, and thus to attempt the very trick which he is strongly and *a priori* suspected to accomplish. He is subject to being dominated over, guided and carried away by his own evil passions, which are insufficiently restrained through a will which becomes accustomed to yield and abdicate in favor of the passivity which is necessary for the production of the phenomena. The needs of his physical body, enervated through successive losses of animic energy, can be restrained, but

with difficulty. And thus, barring a few honest exceptions, one generally sees mediums capable of and really producing authentic psychical phenomena, phenomena which cannot be disputed, who yet resort to frauds, the most odious frauds, which sometimes are but rudely concealed. We have known an honest young man, a medium, non-professional, through the power of whose faculties the real phenomena of levitation and transportation of objects could be seen. He frequently acknowledged that he often felt tempted to add something to that which he was obtaining; he had a violent desire to simulate a phenomenon ranging in standard much lower than that which his natural faculty was capable of producing. As he analyzed this impulsion, he said that it was partially due to a desire on his part to astonish the assistants and to avoid the fatigue attendant with genuine manifestations (1), but was indulged in principally for the self-gratification of playing a good trick and deceiv-

(1) Frequently after sittings, when mediums have produced phenomena of great intensity, they are utterly exhausted.

ing people. Yet, he added that something which he could not exactly grasp (probably of an impulsive nature) added itself to the preceding causes and seemed to him to be quite forcible. He assured us, however, that he had always resisted that temptation.

In short, the ordinary medium is a passive and impulsive individual, and frequently an incomplete one. We have known of one who was impotent, while another among the mediums whom we have studied, was a hermaphrodite.

In the same way that one may be born a medium, or may develop artificially his passive faculty, in like manner one may, after a more or less extended period of training—if born without dispositions—succeed in exteriorizing one's animic force while still judiciously keeping it under the control of will. Thus, M. de Rochas quotes the case of Fabre d'Olivet, who was able from a given distance, to cause any book in his library to come within his hands. This author also quotes the case of a man (probably still living), who was able, through looking at a bird perched on a branch, to force it to come to his

hands. Every one knows the story of Apollonius of Tyana and the hundreds of similar narrations found in the "Lives of the Saints." All travellers who have lived for a certain time in the East have seen most interesting facts of this kind. As it is not our intention to make a ponderous volume of these essays, we must refrain from citing too many of these interesting cases and facts; the reader who desires to learn more on the subject will find in our preceding work such data as may interest him. We will only quote two more instances which were related through a letter sent after a conversation which was held at the house of M. Maurel, then a *Député* of Var, by Mr. C. Demole, once a French Consul in the Extreme East. We quote a few extracts from the letter, which its author has allowed us to produce.

After having begun with a profession of materialistic and skeptical faith, our correspondent continues thus:

"In 1872, in July, while in Cambodge, I happened to be with a bonze and some friends of mine (among them, said Mr. D., in the course of our conversation, was a Catholic Missionary) in

a room near the college of the bonzes. (Mr. D. does not say in what town; he had mentioned it during the conversation, but we have not recollected the name.) We were discussing the subject of our religion and its miracles . . .”

The bonze held that a miracle proved nothing, and offered to show us one:

“. . . There were six in all surrounding and attentively observing him as he looked at one and then the other, in making magnetic passes. Suddenly it appeared as if a cloud were gradually enveloping him, and within a space of thirty seconds he disappeared. A moment later he entered by a back door, came towards us with a serious look, and asked whether we were convinced of his power!

“Another fact reads as follows:

“I have seen in British India, at Bombay, a Hindoo who made us hold (there were five of us) between the thumb and forefinger, the edge of a bowl made of hammered brass, of a diameter of perhaps forty centimetres (16 inches) and mounted on a tripod. We were in a parlor moderately lighted. After innumerable gestures and invo-

cations to Brahma, which lasted fully twenty-five minutes, we saw with stupefaction that the bowl had disappeared while we were looking at and touching it. How did this happen? I could not find out. I examined the table upon which the vase had been resting, and nothing showed the existence of a cavity in which a bowl of such dimensions could have been hidden, and yet the first demonstration, which presented some similarity to this one, made me careful, and I watched the slightest movements of the Fakir.

"Since then I have always sought, but in vain, an opportunity to see again such examples. Nothing so far has been presented but the common tricks of legerdemain done by Hindoos of other castes.

"The Indian with the bowl was, I am certain, a descendant of that race of superior men named Celts, Brahmins or Arias. (?) The bonze mentioned, as well as the Hindoo, were about one metre and eighty centimetres (6 feet) tall. Both were of a dead white complexion, with Grecian profile, and eyes very dark and of extraordinary fixity.

"There, my dear Doctor, is what I have personally seen, and I take pleasure in telling you of it. . . .

Yours, etc.

C. DEMOLE.

October 31, 1886.

The cases told by Mr. de Rochas, and a certain number of examples taken from the "Lives of the Saints," those which have been communicated in the preceding letter, may all be produced by animic force when exteriorized and guided by will.

This force which, unknown to us, maintains life in our organs by modifying assimilable matter, when methodically directed by the will of the operator who *exteriorizes* it, as well as when directed by an external intelligence, is able to cause within inert bodies, sudden molecular changes which are inexplicable—in the present state of what is known as Science—and even to influence in a considerable manner the senses of man and animals.

Before writing about mediums a few para-

graphs which will serve as a transition, in order to give the probable condition of the human being in after life, we think it may be of interest to give another example of the extraordinary things that may be accomplished by men who, through firmness of will and concentration of thought, in short, who, by means of special training, acquire *supra normal* psychical powers, and give to their bodies new and unknown faculties.

Six hundred years ago an Arabic learned man, Ibn Kaldoun, in his Prolegomena of Universal History, wrote on the same subject, which now engrosses us (2.)

And this author, in speaking of the men who undergo a special training, "in order to obtain the faculty of seeing hidden things and to cause their souls to soar in the various worlds of beings," wrote: "They are met, especially in India, where they bear the name of *Djoguis*. They have many books teaching how these exercises must be taken.

(2) See French Translation, Vol. XIX., of "Notices et Extraits des Manuscrits de la Bibliothèque Nationale." Also de Rochas, Op. cit.

Most surprising stories are told about these Djoguis." (P. 226.)

As may be gleaned from these extracts, six hundred years ago as well as at present, India was considered the cradle of the marvellous. Here it is that communities are met with whose members, through a long and painful training, undergone for the purpose of obtaining these much-desired psychical powers, and also, we hasten to add, of reaching an end, the reality of which we will not here discuss, although its ideal may be all that is beautiful and lofty, attain the possession of a peculiar temperament, a new nature. If there be a subject for wonder, it certainly is to see what man is capable of doing with himself, especially when urged by an indefatigable will which allows nothing to interfere or to turn it from the goal which it has aimed to reach. In Europe and America we have seen several fasters remaining for weeks without taking any nourishment but pure water. But in India the fasters are still more wonderful, and to speak only of the djoguis or yoghis, mentioned by Ibn Kaldoun in his *Prolegomena*, several cases are known of

apparent death brought on through fasts which lasted for weeks and even for months. These accounts are according to European Scientists, such as the German Physiologist Preyer, Dr. E. Sierke, of Vienna; Haeckel, the naturalist, and others.

From the following narration, which we abbreviate from a long and detailed relation written by an eye-witness, Dr. Honigberger, and confirmed by Sir Claudius Wade, British Resident Minister at Lahore (3) one may obtain an idea of the perseverance of the yoghis, and see to what fearful maceration they coolly submit their bodies.

Dr. Honigberger is an Austrian physician, who, for several years, has held the position of private physician to Runjet Sing, Rajah of Lahore.

As for the yoghis, let us say at once that they are solitary ascetics who commonly live in the forests or on the mountains. They are priests of a Brahmanical order.

Here we give in brief the story, according to

(3) Also see the "*Temps*," of Paris, October 31st, 1885.

Dr. Honigberger, who supported it through documents which are perfectly authentic.

* * *

Having meditated at length upon the choice of an existence, and judging, probably from the retrospection of his prior lives, that it was time he should end his cycle and absorb himself in eternal Nirvâna with Brahma, that is to say, with Universal Intelligence, Haridès, a Brahmin, became a hermit. He began the practice of the religious, physical and intellectual exercises which constitute the training towards that which Dr. Preyer calls *Anabiosis*, and which Hindoos term *Yog Vidya* and *Bu-Stambha* or *Vaju-Stambha*, or the art of producing (by means of ecstasis and the elimination of the elementals or Genii, intelligent forces of the Earth and waters) a complete and non-perilous suspension of the vital functions. In this state, they say, one may be interred quite a long time and return to life, or float upon water without fear of being submerged.

Having built for himself a half-underground cell, with but a narrow door, Haridès, aided by

his disciples, entered and stretched himself upon a soft couch made of woolly skins and carded cotton. His servants then secured the door with clay and left him. Either sitting in the position of the *Pamadzan* or lying on his couch, the ascetic now sought to concentrate thought through reciting prayers upon the Brahmanic beads, or in pondering deeply upon the Divinity. At first he could remain in his narrow cell but a few minutes; then becoming gradually more and more accustomed to the lack of air, he trained himself to stay there for hours and days. While in this solitary retreat, he began the exercise of the *Pranayama*, or cessation of breathing. He began by holding his breath for five minutes, then ten, then twenty-one, and so on up to eighty-four minutes. He, moreover, caused a series of twenty-four small incisions to be made beneath his tongue, one incision each week. These operations, together with massage, were done to enable him to curl his tongue back against the pharynx, in order to close the opening of the glottis during *Anabiosis*.

During this time the ascetic observed all the

rules of yoghism, he ate vegetables only and refrained absolutely from any carnal intercourse.

At last, when he was ready to undergo the final trial, which we will soon relate, he submitted himself to a rehearsal of it several times before presenting himself at the Court of Lahore.

Why did he present himself before Rajah Runjet Sing? We presume that he went, as did all of the old prophets of Israel, to reproach the Rajah for his sins (kings, alas, commit sins, and are as human as the rest of mankind), to upbraid him for dissoluteness of his Court and to preach to all penance and amendment. To give a proof of his divine mission, he offered to remain under ground in a coffin for weeks or months with assurance of returning to life!

His proposition was accepted.

Haridès the Yoghi made his last preparations. He purified his body externally by ablutions, and internally by fasting and taking the juices of sacred plants. He cleaned his stomach, not with a rubber tube as in modern lavage, but by means of long bands of fine linen, which he partly swallowed and withdrew afterwards.

When the appointed day was at hand, an enormous crowd assembled. Haridès, surrounded by his disciples and accompanied by the Rajah and his Court, gravely advanced to the place of trial. After a linen shroud had been spread upon the ground, he placed himself in the middle, turned his face to the East, and then sat down with legs crossed in the *pamadzan* attitude of Brahma sitting on the lotus. He appeared to meditate for some moments, then fixed his gaze towards the end of his nose after having curled his tongue back into his pharynx. Soon his eyes closed, his limbs became stiff, and catalepsy, then lethargy, or rather *Thanatoida* (a new word which we propose) (4) that is to say, a state similar to death, took place.

The disciples of the solitary saint then hastened to close his lips and to plug his ears and nostrils

(4) From *θάνατος* (death) and *εἶδος* (form). The word lethargy does not, as is erroneously accepted, mean apparent death, but deep, pathological sleep. Etymology: *λήθη*, forgetfulness, and *αργία*, laziness, numbness. Anabiosis seems an improper term, in that it signifies privation of life, which in the foregoing instance is not applicable.

with pledgets of linen smeared with wax. They united the four corners of the shroud above his head and knotted them together. The seal of the Rajah was placed upon the knots and the body was enclosed in a wooden box, four feet by three, securely nailed and also set with the royal seal.

A cemented grave that had been prepared three feet under the surface of the ground, with dimensions exact for admitting the box, received the yoghi's body. The door was closed, sealed and completely stopped up with clay. Notwithstanding these precautions, sentries were ordered to watch the grave night and day, although it was surrounded by thousands of Hindoos who had piously come, as to a pilgrimage, to witness the burial of the saint.

At the end of *six weeks*, the time that had been agreed upon for the exhumation, a still greater concourse assembled upon the spot. The Rajah ordered the clay that walled up the door to be removed and saw that his seal was intact.

The door was then opened, the box with its contents taken out, and after ascertaining that

the seals upon it were also unbroken, the body was lifted from its narrow resting place.

Dr. Honigberger remarked that the shroud was covered with mildew, which he explained was caused through the dampness of the sepulchre. The ascetic's body, lifted out of the box by the disciples and still folded within the shroud, was placed against the cover of the box. Then, before it was uncovered, warm water was poured upon the head. Finally, after the seals had been identified and removed, the body was taken out of the winding sheet which covered it.

Then Dr. Honigberger examined him carefully. He was in the same attitude as upon the burial day, except that the head was resting upon one shoulder. The skin was wrinkled; the limbs were stiff. The whole body was cold, excepting the head, upon which warm water had been poured. The pulse could not be perceived over the radials, any more than it could be felt at the brachials and temporals. Upon auscultation the heart gave no sign of life, and the heavy eyelids, on being lifted, showed eyes set as in death.

The disciples and servants washed the body

and rubbed the limbs. One of them applied on the yoghi's cranium a warm layer of paste made of rye flour, which he renewed several times, while another disciple removed the plugs from the ears and nostrils and opened the mouth by means of a knife. Haridès, like unto a waxen statue, still evinced no sign of revival.

After opening the yoghi's mouth, the disciple caught his tongue and pulled it forward to a normal position, and there held it, as it had a tendency to fall back over the larynx. The eyelids were rubbed with ointment, and a last application of the warm paste was applied to his head. At this moment the ascetic's body was shaken by a tremor, his nostrils became dilated and a deep inspiration followed; his pulse beat slowly and his limbs gave signs of circulation. A little melted butter was poured on his tongue, and, after a most painful scene, whose issue appeared to be doubtful, the lids raised and "the eyes suddenly resumed their brightness."

The resurrection of the yoghi was accomplished, and when he saw the Rajah, he simply said: "Do you believe me now?"

Half an hour had been spent in reviving him, and "after the same lapse of time, he was found sitting at the Rajah's table, still weak, but clothed in royal robe and decorated with a necklace of pearls and golden bracelets."

Sometime afterwards, having probably been challenged by the Rajah, the Yoghi again committed himself to the grave. On this occasion it was six feet underground. The tomb was walled up, the earth beaten over it, some loam was placed over the whole and barley sown upon it. Still, according to the same eye-witnesses, Haridès was this time left for *four months* in his grave. At the end of the prescribed period he was taken from it and revived as before.

These facts are so far beyond all that physiology teaches us in regard to the habitual conditions of human life, that one cannot help thinking at the very least: "I should like to see it." "But," as says the writer from whom we have borrowed this narration, "it would be unsafe to contest these facts, simply because we are unable to explain them." We trust that the ex-

planation will not remain long beyond the pale of science.

However this may be, before refusing *a priori* to accept stories like the preceding, it is well to remember that hundreds of travellers agree upon facts of this nature which they have observed in India. And, that Brahmanic religion, mystical in the highest degree, induces men towards the self-denial, maceration and auto-torture. And finally, that men like the Brahmins of India, who have studied the psychological side of human biology for so many centuries, have more knowledge on these matters than we, who are only just beginning to have them revealed to us.

It were wiser to unite modern Science, exact and positive as it is, to the old traditions which appear to have been retained by the Hindoo "scientists," whose fathers have doubtless inspired Egyptians and Greeks, as well as all the other founders of the great religions of the world which now divide mankind.

* * *

It should be noted that no matter what the religion, the so-called miracles are wrought every-

where by those invested with holy attributes.

But each sect believes its own miracles to be the only ones of divine origin, and any act of an opposing creed, deviating from the *known* laws of nature, beyond comprehension, supernatural, is regarded as emanating from and under direct supervision of the devil.

We, however, have no need to concern ourselves with these opinions, still less discuss them; according to the device attributed to the Mahara-jahs of Benares:

"THERE IS NO RELIGION HIGHER THAN TRUTH."

And as Science is but the sum total of the ways and means leading to the knowledge of truth, its faithful ones, to avoid the distraction of obscure and degenerate symbols, are bound to establish their privileged worship outside of all churches, the starry vault of heaven being the only temple worthy of the exalted idea entertained of Divinity.

CHAPTER VI.

SUMMARY: Supra-ordinary power and new faculties which man may acquire.—The dangers of training which must be undergone for that purpose.—A recent and actual example of these dangers; a whole association of mysticists giving themselves up to most immoral procedures.—The danger presented by Spiritualistic séances and in general psychical researches undertaken without method.—Inferior intelligences seize upon the animic force of mediums.—Great danger in séances held in the dark.—Facts upholding this statement.—One experimenter well nigh mortally wounded, another severely hurt.—Other facts personally observed by the author.—Advice upon the matter.

Hence, man may acquire a power of exteriorization and abmaterialization both of spirit and animic force, which will allow him to produce phenomena apparently in contradiction with the natural laws actually known to modern Science. We have read many very interesting relations of men endowed with these faculties, who live as fraternities, phalansteries in the solitudes of Thibet or in the mountains of Himalaya. We do not know whether the existence of these *adepts* among the Brahmins of higher degree, or that of

the *Mahatmas* (as some term them) is real. We cannot deny, however, the possibility of this existence, such a denial is contrary to scientific principles; moreover, it is opposed by the things which we have seen (5.)

Does this mean that we advocate the practice of Yoghism and its macerations as a means of investigation? Not in the least. But positive Science, with its experimental processes, its inductive and deductive methods, seizes possessions wherever it finds them. So, we think that no stigma attaches itself to the investigator who studies the phenomena determined by the beings called yoghis, fakirs, mediums, etc., who have voluntarily submitted their bodies and minds to a sometimes cruel and severe training for a purpose, the value and legitimacy of which it is not

(5) We have no doubt but that the word "Mahatma" will remind many a reader of the *grandeur et decadence* of a certain "occult science" society. Apropos of this we take the liberty of advising those who might have the idea of organizing a similar association never to mention their *Great Spirits*, inspirators and guides unless they can produce them on demand.

our intention or within our province to discuss. On the contrary, it seems as wrong to neglect the study of psychic anomalies as it would be to ignore physical disorders or teratological malformations.

We are desirous that our readers should know that, far from encouraging any one to follow the footsteps of the yoghis, or fakirs, we have already called attention (see our work on Spiritism) to the dangers incurred through psychical researches. We will add, with regard to the training required for developing the superior faculties of abmaterialization, that it frequently leads to dementia or perversion of sentiment, while it may foster the development of passions commonly dependent on an aberration of the genesical sense. Nature once restrained, some day resumes its rights with usury if the restriction happens to fail. It is thus, according to Pascal's words (6), that "by dint of trying to imitate angels we end in imitating beasts."

We are acquainted with a number of terrible

(6) *Pensées*. Chapter X.

examples of the perversion just mentioned. We will quote one: A talented English writer wished at a certain period of his life to acquire supra-ordinary faculties. He abandoned the lofty position occupied in the political and literary field of Great Britain, and began his search for and study of the occult. He undertook a life of the greatest hardship imaginable, and wrote works which were the admiration of mysticists and students of "occultism." In the United States he joined a mystico-religious brotherhood which he left when the leader of this little church was possessed with the idea of personating God himself. In America, as is well known, these varieties of mania and imposture are not infrequent, and a certain amount of success encourages their production. (7.)

Through proselytism, helped by an unctuous, persuasive power of eloquence, the yoghi candidate began recruiting for a religion which taught the sacrifice of self and the union of souls and spirits in a seraphic marriage. At this time he

(7) New York Herald, May 12th, 1889. See an article entitled "A Remarkable Impostor."

had put aside all fasting, meditation, isolation (*vae soli!*) and the macerations of the flesh, in order to adopt a relatively fastuous mode of life. In the East he had succeeded in founding a community wherein were living a number of young English and American girls and women of good society. This community had in Europe, even in Paris and America, adherents of both sexes.

Behind the piety and refined mysticism of the adepts were hidden the foulest, most obscene practices raised to the eminence of a principle and of a cult *ad maiorem Dei gloriam*.

The false prophet once dead, his disciples, after taking certain precautions, were preparing, by means of occult initiations, to spread the doctrines which had been secretly imparted to them. A party of young people of both sexes, some married, were about to start for the East, when a young neophyte to the new onanic Priapus had her eyes suddenly opened; the spell of suggestion was broken. She worked with all the might of her being to mend the harm that had been done and to prevent its further development. Thanks to her the community was quickly broken up.

We are convinced that the man who was the cause of wrecking so many young minds, corrupted and fanaticized by his apologetic teachings of vice, was naught but an unconscious maniac. If we were asked, as a medical jurist, to pass an opinion on the matter of his responsibility, we would hesitate, and before all else, make earnest consideration of his attenuated mentality, a derangement brought on through the occult practices in which he had formerly indulged. If we may use the words of the Kabbalists, he was not able to prevail against the "Guardian of the threshold, and the sphinx devoured him."

This is an example (whose truth we vouch for) (8) of the dangers run by those who blindly throw themselves in the search of the mysterious Unknown, without steering by the light of positive philosophy, and especially without having become thoroughly imbued with the rigorous principles of the scientific method.

* * *

We have just spoken of the dangers that may

(8) We have in our possession irrefutable documents, and could cite well-known names, were we compelled to do so.

be incurred through the employment of practices which are meant to develop "occult powers;" there still remains to mention the dangerous accidents which might befall those who, without method, aided by mediums, give themselves up to the pursuit of psychic researches.

We have elsewhere alluded to the inconvenience resulting from the study of phenomenal psychism, especially for those whose nervous system is none too strong.

In a general way, we scarcely deem it safe to give one's self up assiduously to the practice of "evocations;" one may not always receive whom one wishes, and when the "medium," having become passive, allows his animic energy (force, vital fluid, perispirit of the spiritists) to escape, any evil intelligence becoming attracted by certain magnetic influences of an inferior order, any larva, as the occultists term it, may take possession of it and cause irreparable damage.

It is chiefly during séances, taking place in the dark, that such events occur.

We will mention in connection with this, two particularly interesting cases. The first one took

place some ten years ago in England. Three gentlemen, desirous of finding out whether certain spiritualistic allegations were true, locked themselves up one evening without a light, in one of the rooms of an uninhabited house, having agreed previously through honor and oath to be perfectly serious and to act in good faith.

The room purposely was absolutely bare, save three chairs and a table. Around the latter they took their seats.

It was agreed that as soon as anything unusual occurred the first one in readiness was to light a wax taper with which they were provided. They had remained motionless and quiet for some time, mindful of the least noise, or the slightest movement which might take place at the table upon which their joined hands were resting. No sound could be heard; the darkness was appalling; suddenly a strident cry of distress burst upon the silence of the night. Immediately after a fearful noise was heard and a hail of projectiles fell upon the floor, table and observers.

Filled with terror, one of those present lighted

a taper, as had been agreed upon, and as soon as the darkness had given place to light, two of them only stood in the presence of each other, and saw that their companion was missing and his chair upset at the end of the room.

As soon as they had recovered from their astonishment, they found their missing friend under the table, inanimate, with his face and head covered with blood.

What had taken place?

It was seen that the marble mantel piece, broken in pieces, had been torn from the wall and cast at the unfortunate man's head.

The victim of this accident remained for nearly ten days in an unconscious state, wavering between life and death, and but slowly recovered from the terrible cerebral shock which he had sustained.

This narrative was told by one worthy of the most implicit faith, who heard it direct from one of the actors in this drama.

* * *

The second case of accident occurring during a dark séance happened to Mr. P., one of the

most distinguished members of the Parisian press, who communicated it to us.

This gentleman had been invited to a private house at Passy, to be present at a spiritual séance, in which the animic force was furnished by Mr. Sh., a well-known American medium.

At a given moment, the medium sat at the piano; several string instruments, among them a guitar, had been placed upon a table beyond his reach. The onlookers formed a circle by joining hands, and the lights were extinguished. The medium played a tune on the piano, and soon after the other instruments were heard to take up the strain, while they floated above the heads of those present, near the ceiling, moving about and being heard in various parts of the room.

Suddenly Mr. P. felt that he had been struck upon the head and was half-stunned. On putting his hand to his forehead, he cried that he was hurt and bleeding. At the same time the guitar fell upon his knees. As soon as the lamps were lighted, it was seen that his face and hands were covered with blood; the guitar had struck him with one of its sharp corners in the middle of

the forehead, and Mr. P. will carry for the remainder of his life the scar resulting from this cut.

Mr. P. is still interested in occult things, but does not care to be invited to any more séances held in the dark.

* * *

In the course of our numerous experiments, especially the first ones, several more or less disagreeable adventures occurred, one of which came near ending tragically. Not that we have ever made any experiments in the dark, for this is a manner of experimenting to which we have always objected. We would add that all of our unpleasant occurrences in this line of work have taken place in full light.

One day, after making a few ironical observations upon the opinions formulated by an ill-bred "spirit," who manifested itself by rappings, the author thought for a moment that his knee-cap had been broken from a violent blow received from the edge of a table which had been rudely overturned towards him. When interrogated as

to whether the injury done had been intentional, the larva answered affirmatively.

But it is of a circumstance which we will never forget, though we live a thousand years, that we wish especially to speak; a circumstance which fully demonstrated the dangers to which one is exposed in making certain psychical researches and which forcibly suggested the necessity of taking the greatest precautions while pursuing them. We confess that our studies in this branch were followed with the customary fearlessness attributed to youth. We regarded it simply as an ordinary physiological investigation, and treated it like any other branch of Science. But since then, we have acquired the knowledge which comes with experience and learned the wisdom of employing certain forms, without which the experimenter subjects himself to serious danger.

In the following the author relates a circumstance in which he played an important rôle.

During the last months of the year 1886, we made regularly, chiefly in the evening, experiments upon the animic force. Two séances, which we are about to relate, were especially full

of incident. These séances were held in a laboratory in one of the ancient buildings of the "Collège Rollin," which had been temporarily transformed into a practical amphitheatre of dissection, for the students of the School of Medicine of Paris.

The halls we occupied, which served as laboratory, were near the dissecting rooms in which, at the time, were numerous "subjects." In one of the closets of our laboratory we had had some time before, a body, which had served for the study of a certain surgical operation. Those who are familiar with the question of which we are speaking, will understand the importance of these details.

The medium, Mr. S., who assisted in our researches, was an American. His animic force was emitted in sufficient quantity to produce "materialization" and the transportation of objects at a distance, without contact.

One Saturday evening in December, 1886, the medium, with Dr. de B., accompanied us to the laboratory of Rue Lhomond.

Two friends, Dr. A. and Mr. L., chief editor

of a political and literary review, with whom we had made an appointment, had already arrived. Our laboratory assistant had prepared everything necessary for the experiment, which included plaster of Paris, on which we designed to obtain impressions.

The plaster, after being mixed with water, was placed in a large vessel under the table around which all of us, excepting the assistant, sat. The vessel was covered with a large bell made of wire net, upon which we placed our feet. The room was perfectly lighted with two gas lamps, one of which was situated directly over us.

On that occasion we obtained but little result, no imprints, save a few insignificant tracings on the plaster, as if a finger had lightly touched it. Several of us had on our clothes, spots of this substance which we had not before noticed. The medium complained of feeling uneasy. He felt, he said, bad influences about him and was strained to the utmost to resist being entranced.

After obtaining a certain number of phenomena, which would be of no interest to report, we ceased our experiments and left, the medium being so faint as to require our support.

On our way from Rue Lhomond to Rue Claude-Bernard, where we were going, to take a carriage, we were suddenly assailed by a volley of strokes, which could be heard and were indeed most palpable (as we have every reason to remember), and which were especially directed toward the medium, who, after this encounter, was fairly overcome with fright. At last a carriage was found, and the medium, with Dr. de B., entered. Hardly were they shut in and started, before an irregular beating was heard on the roof of the carriage. These strokes continued, says Dr. de B., until they reached the Champs Elysées, where S., the medium, lived.

An appointment had been made for the following Saturday, and on that day we all met at the place of our last engagement. As on the former occasion, Mr. L., and Drs. de B. and A., who practice in Paris, joined us, together with the laboratory assistant.

From the outstart, our undertakings did not run smoothly; hardly had we entered the "Ecole Pratique," when we heard, in passing one of the

anatomical amphitheatres, a hissing sound, followed by a violent thud as of some object thrown against a neighboring wooden partition. This noise, we ascertained, was occasioned by a small, empty jar, of the kind used for preserving anatomical specimens; it had hit the wall, rebounded on one of our party and fallen to the ground without breaking. From whence came this missile? The evening was not yet advanced, and without the covering of night no one could have hidden in this gallery.

We next entered a vestibule which opened upon a staircase leading to the laboratory on the second floor; the gas on the stairway had not yet been lighted and the place was rather dark. Fearing another unpleasant encounter, we called to the assistant to make light for us. In the meantime we began mounting the stairs. Hardly had we reached the first flight (the medium being in advance), before another hissing was heard, followed by the breaking of glass, which had been thrown with violence on the stairs which we were climbing. After the gas had been lighted, we found a quantity of glass fragments

which evidently had come from a jar similar to the one seen below. There was no one on the stairway and by what force the jar was launched there, remained a mystery to all.

When once we reached the laboratory, which was well lighted, we had but a recurrence of the events which took place in the preceding experiment, and the medium became more and more nervous.

While we stood around the table (a square, perfectly plain table, which had been purposely constructed), after having prepared the plaster, we said, half jokingly, in French, in order not to be understood by our medium, who spoke English only, that we would not be surprised if the rascally spirit of one of the many bodies dissected there, was not exerting an influence to prevent us from conducting our experiments successfully. The words had barely been given utterance, before the medium was taken with a convulsive agitation which strained his whole frame, and he then became "entranced." That which followed was positively frightful; he arose, and took a few irregular steps in the room, his eyes fairly bulg-

ing from his head in the tensity of their awful stare. Everyone, feeling that something unusual was about to happen, arose and remained watchful. S. turned and, seizing one of the heavy oaken stools upon which we had been seated, swung it about his head in a manner most terrible and threatening. All succeeded in escaping but the author, who, seated against the wall, remained alone to face this being of colossal build, who seemed to have malicious designs on him. They were separated only by the square table before which we had been quietly sitting but a few moments before. The medium's countenance at this time was fearful to look on; he directed his left arm toward the author, with forefinger outstretched ominously, and with the right arm he swung the heavy stool about his head.

This scene, in the old college hall, which for the nonce had been converted into a laboratory for experimental psychology, was really a weird sight; but it was not this which then claimed our attention. Our terrified friends stood aside, no one uttering a word; the medium alone made a sort of guttural rattle. As the author was un-

able to escape from the place where standing, being cornered, as it were, between the wall and table on one side and a stationary cupboard and stove on the other, he could watch every gesture of this man who seemed to have such malignant intent against him, which he gave every evidence of satisfying. He came nearer, well within reach of us, and then aimed a terrible blow at our head with the heavy wooden stool.

We had maintained great presence of mind, and, as may well be imagined, watched him intently. When we saw the object of his attitude, we with dexterity seized the table which was before us and, shifting it rapidly, held it before our adversary, thus protecting ourself as with a shield. The stool struck the table like a catapult, the blow making us retreat against the wall; then a splintering was heard and the table was split in two. We continued to protect ourself behind it and pushed it on towards S., who eventually dropped his weapon and fell backwards on a chair in a swoon. We rushed to support him, but our attentions were useless, as he soon recovered consciousness, though he remembered nothing of

what had transpired. In order not to frighten him we hid our emotion and seated ourselves around the table as before.

This time we purposely placed him next to the wall. The precaution did not prove useless, for he was again taken with a trance no less terrible than the first. He arose, after undergoing a convulsive agitation, then sat down again, with face contracted in a frightful rictus. His eyes appeared to bulge from their sockets. He again arose, we did the same; we then changed our position and placed ourself between him and the stove, but, no sooner did he note the change, than he pushed the table and, seizing a chair, advanced upon us. Alive to the danger, we raised the stool, which he had previously thrown and used it, not as a weapon, but merely to ward off blows which he might launch at us.

There was a moment of anxiety for the on-lookers, when we (the medium and ourself) faced one another with our strange weapons in this well-nigh fantastical combat.

He advanced on us, still swinging the chair, and we were prepared to parry with our stool,

when suddenly, we know not by what force we were prompted to try an experiment, said to be infallible in such occurrences, which had been taught us by a man familiar with these matters. We threw aside the stool which we held, and advanced both hands towards this unfortunate "entranced" one, strongly "willing" that he should become immobilized. We projected, as it were, our will against him, adding to this cerebral effort an energetical gesture. The effect was instantaneous and we were the first to be surprised at the happy result; instead of hurling the chair at us, it was thrown backwards, and, although quite a strong one, was broken past the possibility of repair. (1) S. became as if struck by lightning, his body was shaken with a convulsive tremor, brusquely carried three or four yards distant from where he had stood and dropped on the floor against the wall. All his limbs were contorted, his joints cracked and finally he shrivelled and curled up like a ball.

(1) The chair, we must say, was repulsed rather than thrown, and did not leave the hand of the medium, who really crushed it under the pressure of his hand as though it were a toy.

A few magnetic passes helped him to regain consciousness. As soon as he recovered we left this place, so badly adapted for psychological research, and never returned to it for that purpose.

* * *

As we have just learned, experimental psychical research entails certain risks on the part of those who give themselves up to it, and should, on no condition, be indulged in for mere pastime.

Our opinion on the matter can be advanced in a few lines:

If unable to study experimental psychology seriously, methodically and in a manner profitable to science and mankind in general, it were better, after having seen that which brought conviction to the mind, to refrain from active interest and accept the word of those capacitated to confront the dangers incurred in following investigation of this kind and who are competent to conduct their researches successfully and beneficially.

CHAPTER VII.

SUMMARY.—Why it is that after his first researches the author advanced no theory and held to the ground of facts.—A letter from an editor of the "Journal des Débats."—Materializations.—Mouldings and photographs of animic forms.—Why Scientists, as a rule, wish to say nothing about these phenomena.—Three interviews with Prof. Vulpian, Charcot and Pasteur.—The proof established that man possesses an intelligence that survives the body.—Mechanism of death.—It has two periods: 1. The stage of intellectual secession. 2. The stage of animic death.—The cells of the body are individuals living by and in us, just as we live by and in the Macrocosm.—The living cell contains animic energy, that is to say, Energy in evolution toward intelligence; it assimilates, disassimilates, and remembers.—Pathological immunity is a phenomenon of cellular memory.—An unpublished case of so-called veridic hallucination.—The last words of dying Hermès.

In a preceding work we told at length, before speaking of our own, of the experiments made by most distinguished scientists (W. Crookes, Zoellner, etc.). We did not, for several reasons, wish at that time to advance our theories on psychic phenomena. In the first place, though perfectly convinced as to the authenticity of these phenomena, we were not yet satisfied as to their

cause. We thought to affirm, however, that at least a certain number of those which we had observed were produced by an intelligent determinator, seemingly independent. Moreover, by remaining upon the ground of facts, without consenting to adopt or sustain any theory, we held an impregnable position and could not be accused of having a preconceived opinion on the subject. The result of this candid attitude has fully recompensed us; as we remarked before, the number of letters received from ex-pupils of the Ecole Polytechnique, from the High Normal School, from professors, agrégés of Sciences, physicians, engineers in France and abroad have encouraged us in no small degree to continue our researches.

A number of scientists and otherwise learned men have witnessed our experiments, and written us letters which we, being authorized, might publish. Could those who are unwilling to believe be convinced in any better way than through the testimony of scientists who knowingly have risked their professional reputation in publishing the results of their experiments?

Among the experimental facts which we published in our earlier work we insisted especially on the phenomenon of *independent writing*. We will here reproduce a letter which was sent us after a séance in our house, witnessed by Mr. Patinot, director of the *Journal des Debats*, and two of his collaborateurs, André Hallays and the lamented Harry Alis, author of the letter referred to. Before producing it, we will explain the mechanism of direct writing, according to the theory which our researches permit us to advance.

The medium, being in an almost complete state of passiveness, though awake, his animic force, instead of remaining limited to his organs, floats without. The intelligences which attach themselves to his person, being unable to manifest themselves *without a supplement of animic force*, can take up that which is emitted by the medium and utilize it in giving evidence of their existence and presence in various ways, viz.: In assuming some form, producing *sounds* or *voices*, or in causing objects to move, as in this particular case a pencil of three or four millimetres

long, which is rubbed against the surface of a slate. They may also give this force, when plentiful, all the appearance of living (we will speak of this later) or inorganic matter. This, perhaps, will some day serve to prove that matter proceeds from energy, for leaving apart those cases in which there is a transporting of objects, some of these materializations remain.

Now we give the letter before referred to.

JOURNAL DES DÉBATS,

POLITIQUE ET LITTÉRAIRE

Rue des Prêtres St. Germain l'Auxerrois, 17.

Paris, November 21st, 1886.

Paul Gibier, Esq., M. D., Paris.

Dear Doctor:—

I witnessed yesterday evening with Messrs. Patinot, André Hallays and another gentleman, the experiments of Mr. Slade, under conditions which dispel any hypothesis of trickery.

While I kept my eyes fixed upon the medium's feet, I heard and felt two knocks against a foot of my chair.

Mr. Slade renewed successfully the experiment of transporting slates under the table. Messrs.

Patinot, Hallays and the fourth spectator (1) felt a cool breeze, and the slate was gently brought into their hands.

Mr. Slade repeated in a variety of ways the experiment of writing between slates. We are convinced that the phenomenon was real. At one time, Mr. Slade held the slate under the table, but from five to six centimetres below it, and we could distinctly hear the movement of the pencil over the slate. A word from one of the spectators caused the medium to turn his head, and with an involuntary nervous jerk he brought the slate from under the table and held it under my eyes; where, for a period, which I value at five or six seconds, *I saw the pencil running alone and rapidly over the slate tracing characters*, about three or four letters. Following shortly, three knocks were heard, and Mr. Slade, producing the slate, showed us the written words.

Very cordially yours, and once more,
accept all our thanks,

HARRY ALIS.

(1) The experiment was made at the author's house. The "fourth observer," who desired to remain incognito, was a man of distinguished scientific ability.

This essay is not intended to report the results of an experimental work, in that it is not specially devoted to the study of experiments, but it is, nevertheless, the consequence of untiring investigations in that direction. These experiments permit us to be more daring than of yore, and it is through them that we can now assure psychologists, if they but experiment with endowed and honest mediums, that they will find the proof of a continuance of the human consciousness in the period which comes after the last function—death. For how long does this consciousness live on; what are the conditions under which its life, its existence, continue to manifest themselves? These are questions which, in view of the present state of scientific ideas, are very difficult—we do not dare to say to solve, but—to approach. However, we believe that ere long the subject will be as freely, ably and popularly discussed as is any other physiological matter. In fact, we are happy to be able to inform the reader that some physiologists, occupying positions of distinction in France, as well as abroad, are to-day well versed in this matter. It would be doing them an injus-

tice to suppose that they are "hiding their light under a bushel," when, in the shadow of their official chairs, so many young physiological apprentices are seeking to slake an unquenchable thirst for knowledge.

Therefore, we will say, without fear of advancing too much, that, from recent investigations, we may soon expect to obtain very instructive data, notwithstanding the contradictions noted in the *writings* and *discourses* of representatives of the *unseen world*, of the *usually invisible beings* which manifest themselves to us.

We will say no more, the time has not yet come. But remember this: the invisible world is but a reflection of the world that we fancy we know.

* * *

Among the many learned and distinguished acquaintances that we owe to the publication of our first book, we must mention Mr. Arthur Engel, an ex-pupil of the School of Athens, who furnished us some very interesting accounts of his experience with Eglington. We had been invited to go to London to see this medium, but at that

time it was impossible for us to leave Paris, and Mr. Engel volunteered to attend the last séances, we think, given by Eglington.

The scientific method with which these records were taken, filled all of our requirements. We do not wish, however, to reproduce them. We will even refrain from mentioning other experiments of the kind, although we have in our possession a number of the most interesting and curious documents, viz.: So-called spiritualistic photographs obtained through six mediums by different experimenters (civil engineers, physicians and chemists), relations of séances with extrarodinary "apports" of objects, materializations, etc., and notably, a voluminous manuscript written by Col. N., a former pupil of the Ecole Polytechnique, wherein he related the various experiments made in the years (1875-76-77). In the séances of Colonel N., which were witnessed by notable members of the army, the principal mediumistic light was his adopted daughter. For the benefit of those initiated in these studies, we will quote one experiment which especially claimed our interest, namely: The perfect materialization of a

small dog which had belonged to the Colonel, and had died some months before. As we have before mentioned, it is our intention to write a separate work on these matters.

Since we have again spoken of materializations, we will add, that in materialization séances (let us note this) any one may see a dead member of his family and hold converse with him. One may press the hand of a materialized spirit, fold it within one's arms and have the illusion that it is a return of the living from the dead. This being will speak of your private life and of things known to you only. The voice may be unchanged. This apparition has a heart which beats and lungs through which air is inhaled and exhaled, as may be ascertained by auscultation. (See the experiments of W. Crookes, F. R. S.) It may be photographed and imprints, or rather the hollow mould, of hands and even heads (many examples of this kind exist) may be secured through liquid hot paraffine, rapidly cooled before the materialization vanishes. These moulds are without a trace of a solution of continuity, or of

threads, and the professional moulders to whom they may be shown are unable to understand by what process they were obtained, unless they are told of it.

All the objects, photographs and mouldings remain to us as unalterable and irrefutable proofs of something which, though evanescent, still existed, and that we have not been the victims of an hallucination.

Let us add that these materializations are produced by intelligences which act through the force or animic energy drawn from the medium. (1.)

(1) Among the many cases showing survival of the consciousness, which have been reported in the Proceedings of the Society for Psychical Research, we will quote the following. It is a summary of the report recently given by Dr. Richard Hodgson, Secretary of the Society. The observation was made through Mrs. Piper, a well-known medium of Boston. For the details of the means by which the communication was obtained, we refer the reader to the Proceedings of the above mentioned society. (Part XXIII., Vol. XIII.)

Among the persons of Dr. Hodgson's acquaintance who attended with him Mrs. Piper's seances was Mr. George Pelham (pseudonyme), a young literary man interested in psychical research, but decidedly skeptical with regard to the reality of the manifestation

To the question, how is it that these things are not better known and better studied, we will reply: Scientists have studied and known them for a long time, but fear of having their names besmirched and honor questioned has made them trepid of exposing their theories and experiments to the criticisms of the world. And so, for his own benefit solely, the scientist, either

of the "spirits." He, however, had been astonished at some phenomena witnessed, and in discussing the subject with Dr. Hodgson, said: "If spirit return is possible, I will move heaven and earth to come and communicate after my death and give a proof as striking as possible of my identity."

Shortly afterwards he met with an accident, in New York, and was instantly killed.

A few weeks later, Dr. Hodgson having a sitting with Mrs. Piper, received a message from Geo. Pelham, who reminded the Doctor of their former discussions on the survival of consciousness, etc., and he concluded by saying: "Well, Hodgson, old man, there is no death."

On various occasions Geo. P. communicated with friends who had come to witness the fact, and, although they were unknown to the medium, were immediately recognized and their names given correctly by the "spirit" of Geo. P.

One of those who came was a Mr. Howard (pseudonyme), of Boston, a friend of Geo. P., who had dur-

alone or with a few neutral friends, has studied these great and all-important questions, and kept for himself the results of his investigations.

It must be said that hungry and venal palinodiae as well as sensational frauds have invested the subject with a certain degree of scandal which, in itself, suffices to cause the timid to hesitate; while, on the other hand, it strengthens the opin-

ing life boarded in his house. At the first sitting Mr. Howard was greeted by name, the conversation commenced and continued as though Geo. P. had been living among his friends. He touched (through Mrs. Piper's hand) the shirt buttons worn by Mr. Howard, and said: "These were mine; I like you to wear them, and am glad to bequeath them to you." He went further, and said: "I wore them the day I was killed, and mother sent them to you." "Pardon me, George," interrupted Mr. Howard, "your father sent them to me." "Father mailed them and wrote you, but it was mother who took the buttons from my body, gave them to father and asked him to send them, thinking they would be agreeable to you."

Geo. P.'s father and mother, who live in Washington, D. C., confirmed the statement of their son's "spirit" by letter, and came shortly after to Boston. As soon as they sat with Mrs. P., who did not know them, they were greeted by George, who conversed with them on personal matters, just as though he were yet in flesh.

ions of those who gather all their ideas from the columns of the newspapers.

Moreover, a multitude, invested with power, have, under every pretext, sought to prevent the divulgence of this new knowledge. We will mention notably the scientific materialists on one side and the religious spiritualists on the other. Their opposing views retard, but will certainly not prevent truth from coming to light, and we may add that it (truth) is spreading and throwing an effulgent light on the world of seekers.

If any one cares to have an instance of how some prominent men receive that which does not fit in the frame of their ideas, we will entertain them with the following anecdotes:

Some fourteen years ago, when we published our first work on the question which now occupies us, we went to Professor Vulpian, former Dean of the Faculty of Medicine of Paris and member of the Institute of France, etc., with a view of introducing our work to him, he having shown his good-will towards us in several circumstances. As soon as the subject of the book was made

known, he looked his disapproval, and said somewhat rudely, though with intentional kindness: "You know that I have always taken a sincere interest in your labors, but I must say that I am sorry to see you now engaged on a subject so doubtful." He assured us (though he had never made any researches in the matter) that in it there was naught but "Fraud and deception," and that if we continued to find occupation in such things, we would be "a man at sea." Those were his exact words.

"Do you remember, dear Professor," we answered him, "that when Professor Bouley presented at the Academy of Sciences, on behalf of a correspondent (1), a paper on the microbe of tuberculosis, you assured him that it *could* not exist? For, you said, if it were in existence it would already have been found, as it has been sought for a long time." "It is not the same thing," he answered, slightly embarrassed, for the said bacillus had since been described by Robert Koch. "The microbe of tuberculosis can be seen,"

(1) Toussaint, of Toulouse, who was probably the first to see and cultivate it.

he said, "the only thing was to discover a process by means of which it could be put in evidence."

"It is a parallel case," we responded. "The facts are palpable and we needed but a special process to render them demonstrable to touch and sight."

Now Vulpian is dead. He knows to-day which one of us was right.

Why did we offer our book to an Academician, and, still more, pretended to ask him to present it to the section of Sciences? We can see from here the stupefaction of the honorable members of the Institute hearing, in 1886, a communication couched about as follows:

"Gentlemen:—

"I have the honor of presenting to the Academy a paper from Dr. So-and-so, treating of ghosts and phantoms, as well as of the images to be obtained of the forms of these spirits by means of photography."

We recognize now that to present our work to

the Academy of Sciences as early as 1886 was certainly a premature venture on our part.

It may interest the reader to know also of the opinions expressed on the works of the author, by two of the greatest scientists of our age.

Our lamented teacher, Louis Pasteur, to whom we presented, in July, 1889, a new edition of one of our books on matters psychic, looked at us half reproachfully, and said: "How dare you meddle with a subject so dreamy, misty and intangible, wherein human reason finds nothing to grasp and is lost, when it is already so difficult to make more than groping paces on the grounds of investigation where we deal with objective matters falling under the control of our senses?"

"Dear, respected professor," we responded, "we can affirm to you that the matter on which this book treats may be placed under the 'control of our senses' as easily as are the erstwhile invisible microbes which, for the great benefit of mankind, you have been so fortunate as to ably reduce at command."

His intelligent face, at this assertion, became

stern and thoughtful, and he appeared surprised. He remained silent for a while, then promised us to peruse our work.

We have the impression that, while we write these lines, his spirit hovers over us and speaks approval of the work we are now preparing. Of the book we offered him, alas, he never spoke, for the Angel of Death had touched his brow!

We had another interesting interview with the illustrious neurologist, J. M. Charcot, a few months before he was so suddenly stricken and torn from the affection of his numerous pupils, patients and admirers.

When a student at his famous hospital, La Salpêtrière, we had had the honor of following his clinical lectures, and despite of his numerous occupations, he was always kind in explaining and giving us his views on various subjects. With reference to our investigations on Psychism, he was rather conservative, but we concluded from his reticency that he had, to say the least, "entrevu" the import of grandeur of this branch of

knowledge. Nevertheless, alluding to our personal position, he simply quoted the words of Brutus:

There is a tide in the affairs of men,
Which taken at the flood leads on to fortune.
Omitted, all the voyage of their life
Is bound in shallows and in miseries.

He meant by this that the author had compromised his scientific fortune in "dabbling" with an untimely, inopportune subject. He completed his thought in adding: "Despite the security of my position, (he could not reach a higher rank in scientific honors) I have decided to leave alone the subject of Hysteria." He, no doubt, thought the subject already too compromising.

We listened in silence, yet before leaving him, for the last time, we could not refrain from replying: "Your advice is unquestionably sound; yet, were it not more courageous to ignore it?" At any rate, it came too late for us, and we will here state that even had it not, we would not have followed it.

The hour of appreciation has not yet rung for these facts which will some day constitute

the corollary of human knowledge. But in a little while we will see Mr. X., Y. or Z., professor of physiology or of nervous diseases, member of the Institute of France or of the Royal Society of London, taking up our experiments and those of our predecessors (Robert Hare, William Crookes, Boutlerow, the Committee of the Dialectic Society of London, Zoellner, etc., etc.,) and reading finished papers before the members of his societies, at the same time presenting to the wondering eyes of his colleagues specimens of "transcendental" photography. And, when doubt shall have fled, the Press will chant and echo his glory; those who, before, energetically repulsed and denied the truth, jealous of his success, will cry aloud: "There is nothing new in it," in order to appear well informed. Such is the destiny of men and things in the present race.

* * *

Notwithstanding the early statement made, wherein we said, that in this Essay we would waive all introduction and deal at once with facts, we feel it incumbent to enter an excuse if our

studies should find the non-initiated reader unprepared for the invasion made on his convictions and everyday knowledge.

It may also be noted that we have made no observations on religious topics, thus protecting ourself from the accusation of having attacked or favored any belief in particular. Those who believe they have the monopoly of true insight, in religious or philosophical matters, cannot object to our earnest endeavor in learning the truth. He who is convinced and who labors in conformity with that which he believes to be an expression of truth, can but wish success to our undertaking, and consider it as being an auxiliary to his belief.

We will limit ourself to the study of facts and endeavor to discern their consequence. And we beg the reader to believe that we are speaking only of what we know through observation and experimentation. (I.)

(1) Following the example set by Sir William Crookes, in his *Psychic Force*, wherein he gives a résumé of his work and his scientific titles, the author begs permission to say that he thinks he has some right to assert that neither observation nor experi-

In the many examinations which we have made of the phenomena just mentioned, we have always been inspired by the following words of Voltaire:

mentation are foreign to him; as a physician, that is to say, as a professional observer, he has been exercising his faculties of observation for over twenty years, a great part of which was spent in the hospitals of Paris.

As an experimenter, he effectively directed for several years the laboratory of Experimental and Comparative Medicine at the Museum of Natural Philosophy in Paris (Muséum d'Histoire Naturelle) where, among numerous researches, it was given to him to demonstrate, through delicate experiments, that cold-blooded animals such as batracians and fishes, may be made to contract certain maladies of the warmer-blooded animals (the bacteridian anthrax), from which they usually are exempt (through raising their temperature to a degree near that of the mammifera, by causing them to live in warm water). (C. R. Académie des Sciences, 1882.)

The interesting fact that birds, hens, etc., contract hydrophobia and transmit it to mammifera several weeks after inoculation, and yet can be cured or recover in a spontaneous manner, was first discovered by him. (Acad. des Sciences, 1884.) At the same time he demonstrated that rabies could not be contracted twice, as the birds which have once recovered or been cured have not again become hydrophobic when submitted a second time to inoculation.

The author was the first to demonstrate the exist-

(1). "Quand on a fait une expérience, le meilleur parti est de douter longtemps de ce qu'on a vu et de ce qu'on a fait."

We have also availed ourself of the timely word of advice given us by the illustrious Louis Pasteur, in a letter which he addressed to us, in 1887, previous to our departure for the West Indies, where we went as envoy from the French Republic to investigate Yellow Fever :

ence of the germs or microbes of acute pemphigus and rabies, and the essay which he published upon the whole of his work on rabies and its treatment, was granted by the University of Medicine of Paris, one of the highest encomiums awarded to theses presented for its approval (1884).

Finally, in high spheres, the author's faculties as an observer and experimenter have not been regarded as unimportant, for on five different occasions the Government of the French Republic intrusted him with the mission of studying in France and abroad two epidemics of cholera (1884-1885), two epidemics of yellow fever (West Indies, 1887; Florida, 1888-1889), and the experimental methods of various foreign scientists. As for his work since he has been at the head of the New York Pasteur Institute, he can only refer to the quarterly Bulletin of this scientific institution.

(1) Des Singularités de la Nature.

"Dear Dr. Gibier:—

". . . Being familiar with the recent methods applied to the study of contagious diseases, you can further the difficult researches which you are about to undertake.

"Above all, beware of one thing, viz.: Haste in reaching conclusions. Be to yourself a vigilant and persistent adversary. Always think that you may be mistaken. . . .

"My congratulations and a cordial grasp of the hand.

"L. Pasteur."

It is only after having observed the phenomenon of direct writing at least *five hundred times* that we decided to publish our observations. Furthermore, we were thoroughly aware of a number of facts of the same nature and far more extraordinary in appearance.

We will add that for five years before our matriculation at the School of Medicine, we studied mechanics technically, a pursuit which we found to be of great aid in revealing mechanical trickery. We also made a slight study of prestidigitation,

and we must confess, indeed, that through learning the tricks of legerdemain we were able to detect any fraud which mediums might employ in their séances.

On the other hand, we must ask it to be noted that we are not trying to work a propaganda for any doctrine whatever; we study the question from a purely scientific standpoint, nothing more. We will go further and add, that on all occasions we advise those who, in good faith, wish to convince themselves of the reality of such facts as form part of this study, to be (for reasons before mentioned) on their guard against a crowd of so-called mediums who should never be employed but under strict test conditions.

In conclusion, we will say, that while we recognize the real existence of the phenomena herein studied, we are by no means the defender of the neo-spiritualistic doctrines which have, at least by some, been prematurely given as a starting point and basis the phenomena in question.

* * *

If ever an axiom were faulty, it is the one wherein we are told, "We readily believe that

which we desire." In a great majority of cases men hope, or rather desire, to live after death, under one form or another. We will explain: Scientists, for instance, even if they deny a hereafter or the survival of consciousness, work not solely to benefit mankind, but with the aim of achieving fame and of having their names handed down to posterity. Therefore, the inference drawn is, that they wish to live, at least, in their works. Artists do likewise. We know full well that this desire for glory, that is to say, for a form of survival, is generally pretty well welded to aspirations which are less ideal. But let us pass on. All that we wish to illustrate is, that notwithstanding these instinctive desires for immortality, the most of us show ourselves rebellious when it comes to the admission and the study of these phenomena which are best adapted to show the possibility, I dare not say of this immortality, but of at least a survival more or less prolonged, of this conscience of man after death. A rather curious, and at the same time contradictory fact is that this same repugnance is found among a fair number of spiritualist philosophers.

It is no less a settled fact for those scientists who have observed the psychic phenomena determined by the presence of mediums and *fakirs*, (the Hindoo mediums,) that they constitute the most certain proof we have of the existence of the spirit, or intelligence, as a conscious principle persisting after death.

When the time arrives we will study the question of the duration of this conscience and of its transformation. For the present, we are led to believe, from the sources of knowledge drawn on and from personal observation, that in certain cases it persists for centuries. We will also add that time, in that after-life, loses its value, and, as we will see later on, is then entirely different from that which we have at present.

* * *

If this essay is favorably received by the chosen public for whom it is intended, we may in a later edition bring together its several paragraphs by adding some lines which we had to omit at the last moment. Certain subjects which we have not thought it yet time to insist upon will thus be

completed. Notwithstanding the reserve, a relative one, which we impose on ourselves, we cannot refrain from summarily stating how the phenomenon of death, according to the new data which psychic studies have already yielded, takes place.

We have seen that just as is the Macrocosm, so is man made up of three fundamental parts :

Matter, (The body.)

Energy, (The soul.)

Intelligence, (The spirit.)

Each one of these parts may be considered under several different aspects, which would make as many sub-divisions, but we will defer entering into the details of a more complicated system of Hyper-physics.

When true death occurs, the spirit is the first to abandon the body, leaving it in a more or less rapid way, according to the manner of death. At the same time, a certain part of the animic energy is dissipated, and, in a *gradual way*, re-enters the great common storehouse of Universal Energy. Another part of this force remains bound to the spirit, without which it would prob-

ably return to Universal Intelligence, just as the matter of the body and a certain quantity of its energy return to the ambient matter and energy. But it is later that the animic force definitely leaves the body, providing it (the body) has not been destroyed by fire or through any other destructive cause, immediately after death.

In other terms, intellectual secession occurs first and the animic follows gradually, more or less rapidly, according to the manner of death and degree of temperature. It is, so to speak, the successive cellular death. Life, the *anima*, leaves the cells one by one, and the being of the new life is only definitely constituted when the *animic force* which permeated the various cells and globules has left them to join once more the spirit towards which it tends, in virtue of a law analogous to the attractions which we observe, but whose nature at present is equally unknown to us.

* * *

In the same way that matter, even when in a supposed state of complete repose, contains potential energy, so does animic force contain in-

telligence in the germ or potential state. Matter is thus, according to these views, to which we call the reader's attention, a *modality* in evolution towards that energy from which it appears to proceed, just as the latter would be in evolution towards intelligence, from whence all things proceed and to which all things, in a perpetual circle, return. That is what has been figured by the ancient initiated ones in the Ouroboros (the serpent which feeds on itself, and is rolled in a circle, within which an ascending and a descending triangle are interlaced, indicating the two currents in contrary directions, which represent the life of the world.) This is also what the religious initiators of Humanity have meant to illustrate in their sacred histories wherein is written: "The spirit created the world out of nothing," that is to say, out of itself.

The animated cells, containing intelligence in an embryonic state (if we may thus express ourselves), manifest this intelligence after the manner of the lower beings. They vibrate, assimilate, disassimilate, reproduce and *remember*. The phe-

nomenon known under the name of *immunity* against an infectious disease which has already attacked the human body (or that of an animal) is but a phenomenon of *cellular memory*; and the manifestation of *potential intelligence*, the cell, a living being, in a measure independent, has thus once more victoriously fought the cells of the invading germs or microbes, and remembers that it did and how it did resist them, transmitting this memory (heredity) to its daughter-cells. It is only after a certain space of time that memory is lost and immunity forgotten. (1.) Each individual in the polyzoic confederacy fights for all and seeks to the full bent of its power to expel from the territory of the republic the intruders who seek to live at its expense. Thus, each cell

(1) "The digestive action thus determines the function of hepatic glands; but it must not be believed that this is due to the ingestion of aliments. In an animal which is accustomed to take meals at 8 o'clock A. M. the hepatic cell commences to work at about 10 A. M., and this occurs whether food has been partaken of or not. The cell has the habit of operating at 10 A. M. and thus operates. This is an instance of cellular memory."—(Henri Hilier, *Revue Scientifique*, No. 6, Vol. II., 1899.)

in our body is a living being, an animal representing a microscopical likeness of man, formed in due proportion, of matter, energy and intelligence.

This theory differs from that of Durand de Gros, in so far that, instead of dividing man into sections, we see an individual in each cell of his body. These cells are grouped in various communities, which present to the observer racial or national (so to say) characteristics. Collectively, they perform specified functions.

Man is composed of these collectivities, the whole of which is the image of mankind.

The discovery of Phagocytosis by Mr. Metchnikoff is a perfect demonstration of what we advance. This scientist showed, through delicate experiments, that the white cells of the blood and the lymphatic organs filled 'the part of police agents in the circulation of the humors of the body. The moment a foreign element is introduced in our circulation, they unite in great numbers, imprison and at once seek to stifle, devour and digest it, in a word, cause it to disappear. In this they frequently succeed, particularly when

dealing with attenuated microbes, like the "vaccinal" *bacillus anthracis*, etc., or those belonging to diseases not commonly fatal. Finally they tend to expel it, when they have to deal with a voluminous foreign body which they have not succeeded in encysting.

We do not think that this theory of immunity, which we presented in 1889, had been introduced before, and we submit it to the judgment of scientific critics with the certainty that some day its accuracy will be recognized. (2.)

* * *

This digression à propos of cellular life seems to us indispensable in order to give a true idea of the nature of man and his constituting elements. It remains intimately contingent to the nature of that which we are now trying to analyze. Let us pause once more on this subject.

The fact which proves that under ordinary conditions the animic death, following intellectual death, occurs only progressively, is the discovery

(2) From the contents of the preceding foot-note one may see that the idea has progressed.

of epidermic grafting by Dr. Reverdin, of Geneva, a former colleague of the author at the Hospitals of Paris. Every one knows that this grafting consists in the replacing of destroyed epidermis, in order to assist the development of a new covering surface. To replace the destroyed skin, small epidermic grafts are removed from other parts of the body, or from another person, and *transplanted* over wounds which would otherwise be slow to heal. These grafts continue to live where they have been placed, and even develop at their periphery. Therefore, they had not lost life when separated from the body. We can remove pieces of epidermis, and even large portions of skin from a body several hours after death and find that their anatomical elements continue to live when grafted or sutured on the living body. Thus, *notwithstanding death, there was no death*. Skin grafting has now become an almost everyday occurrence, and the methods of application as varied as the purely experimental researches made on it. The skin of white men has been grafted upon negroes and vice versa. The result has been, that for some time the trans-

planted skin remained of its natural hue, but in time partook of the color of its new *owner*.

All those who have performed autopsies shortly after death (for instance during epidemics of Cholera and Yellow Fever) have been able to notice that the severed muscles contract under the scalpel, just as they do in the living body during amputation, animic death having not yet reached the muscular cells. The same may be said of animals. The process of galvanization of executed men, whose faces become distorted and whose limbs are caused to jerk and twist, like those of puppets, again proves that organized matter maintains the life which *animates* it, and that it is still excitable; the *exciting agent* alone has disappeared. If we could establish an artificial circulation and artificial breathing in the body of a man recently executed, whose intelligence has been definitely severed from his body, we might possibly obtain an automaton capable of living animically for a certain length of time, though already intellectually dead beyond recall.

Reverdin's grafts prove that the epithelial cells continue to live and even to develop when they

are transferred to a living medium. A fact which we observed in Havana (during the course of the mission for the study of Yellow Fever, which was confided to us by the French Government) shows that certain cells of the human body are capable of multiplying in non-living media, such, for instance, as gelose, (agar-agar), which serves to cultivate microbes. Thus, in a case of Yellow Fever, two hours after death, on December 23d, 1887, we drew some liquid through the walls of the bladder, which had just been exposed at a point which we first cauterized with a redhot iron. We punctured it with a tube of glass, narrowed at one end (Pasteur's pipette), and with the broken and irregular end of this tube, which we had previously passed through the flame of an alcohol lamp, we lightly scraped the internal wall of the viscus and drew, by aspiration, a small quantity of the liquid contents. The tube was immediately sealed by heat, and half an hour afterwards its contents were placed in liquefied and neutral "gelose," which was placed in watch crystals and well protected in china vessels. (1.)

(1) A process described by the author in a communication to the Academy of Medicine of Paris, 1888.

No colonies of microbes showed themselves, but a few days later we were agreeably surprised in seeing, in the transparent medium of agar-agar, a certain number of whitish, irregularly shaped pellicles, which were augmented day by day. We examined these small masses with the microscope; they were composed of flat, irregularly shaped corpuscles furnished with a nucleus, and identical to the endothelial cells of the vesical mucous membrane. We observed them for some time, and their development was only stopped by the drying of the gelose and the invasion of the culture by the micro-organisms of the air. Inasmuch as at that time we were much engrossed with investigation on the "black vomit," we did not have time to follow the study of this interesting fact. Since then, we must admit, that, notwithstanding several attempts, a repetition of this experience could not be obtained with the same satisfactory results. The composition of the culture-medium must needs play an important part in the matter. However this may be, we have not the slightest doubt to have witnessed the multiplication and the de-

velopment outside of the human body of cells which had been a part of it, and if circumstances allow, we shall try again to demonstrate this curious phenomenon of animal cells growing in an inert medium.

* * *

Before closing this chapter, we do not think it superfluous to dwell a moment on that, which to our mind, constitutes a proof of the continuance of conscience after the destruction of the body.

As we said before, we do not purpose relating other experiments, and for further accounts can only refer the reader to those which reliable experimenters have already published. If he admits that the researches made by Sir William Crookes and others as well as ourself, are of such a nature as to deserve serious attention, he will find in them an incentive for further study of the question. Through reading the principal modern works treating on the matter, and through observation and personal investigation, he will very soon learn that we have not advanced too much, and moreover that we have kept *within*

the bounds of truth. His conviction will grow on him in proportion, as his investigations will be more serious and more frequently repeated. The contrary (as may have been noticed) invariably happens in regard to an illusion.

* * *

Thus does man find himself, after death, in what we call the *after-life*, in a state which doubtless is normal; the one in which we now live being but transitory, although its purpose or aim be a useful one.

The experiments of which we have spoken are not the only ones which serve to prove the existence of this great truth. We mentioned before the work entitled *Phantasms of the Living*. In this book written by distinguished scientists we find innumerable accounts of those who at the time of death have appeared to friends and relatives living at a distance. It is impossible to believe that these events merely have to do with a series of accidental occurrences.

The following observation which we have collected recalls many of those related in the above mentioned work:

This case was communicated to us by M. Lemerle, captain in command of one of the steamships of the Compagnie Générale Transatlantique. After having related the fact, on board of the steamer La Fayette, while making a voyage to the West Indies, in 1888, he confirmed his statement by two letters, the first one written October 2d, 1888, and the second December 20th, of the same year, after a visit paid to his father, who was the "percipient" in the observation we are about to relate.

M. Lemerle, Sr., is also a sailor. In 1870 he commanded a brig, which was on the home trip from Carrara, loaded with marble, consigned to Rouen.

The brig was slowly sailing along the coast of Portugal in a rather heavy sea, when one day, as he was on the deck of his vessel, M. Lemerle, Sr., suddenly saw beside him his brother, also a sailor and sea-captain. This brother, we were told, was not on very good terms with him, and no accurate knowledge of his whereabouts was kept. He was supposed to be somewhere at sea, but that was all that was known of him just then.

The captain was not thinking of his brother at the time, and, though he had never experienced such a thing before, concluded that it was an apparition.

This apparition, moreover, haunted him several succeeding days, and followed him on the bridge and on deck, in his state-room, and even accompanied him at table, though invisible to all others.

We will give Captain Lemerle's own words:

"Much disturbed by this occurrence, my father stopped at Belle Isle, and from there telegraphed my mother, asking if anything had happened at home. (1)

"The answer given was, that a great misfortune had occurred to the family. My uncle Toussaint, father's brother, the same whose image had so vividly appeared a few days before, had been carried overboard while in command of a ship on the Atlantic.

"It was the only time that my father observed a phenomenon of this kind."

In his second letter M. Lemerle, who was about to assume a position in the Antilles, wrote in

(1) Owing to the absence of precise dates and the rules of the telegraph office (Government's), we could not make inquiries as to the telegrams here mentioned.

answer to some questions which we had asked of his father on certain points regarding the apparition:

"Before leaving France I consulted my father on the subject of the vision which he had some years ago.

"There is absolutely nothing to be modified in what I told you on board the steamship "La Fayette."

"My father was unable to say exactly whether the presentment of his brother appeared material or not; his memory, owing to advanced age, is becoming defective. Yours, etc.,

F. Lemerle,

"Captain in Command of Steamships for the Compagnie Générale Transatlantique."

In the last few years this kind of apparition has been improperly termed "Veridic Hallucination."

* * *

We will only add a few remarks to this long chapter, and endeavor to explain how manifestations like the one just related occur, more especially at the time of death. According to the theory which we deduce from our observations, it is because the intelligence may dispose immediately after death of a certain amount of free

animic energy which abandons the body little by little, after what we have termed the intellectual secession (we fear we are not comprehended by all, but we trust to time to remedy this condition).

On the other hand, these facts are more commonly observed in some countries than in others. This depends on two principal causes. In the first place, certain races, for instance, the Scotch and the Swedes, are particularly predisposed to the phenomena of double sight, and abmaterialization of the animic force, etc. Besides the question of race there may exist an effect due to the magnetic influence of the country. North America appears to present this condition. Another cause, which in our opinion is most important, is held in the fact that a person dying with the fixed certainty that this state is a mere transition, must be less disturbed than one ignorant of his future. He first understands far more rapidly the situation in which he finds himself and is able, at the time of death, to utilize that part of animic energy which he cannot retain, and forms therewith a visible image after his own likeness (he clothes himself with materialized or

materializing energy) or perhaps produces a state of fascination upon those whom he wishes to acquaint with his death, or rather, opens in them a special sense of perception of his projected thought. For, later on, it will be known that often these forms are not the very individual intelligence or consciousness of the persons whom they resemble, but only their projected thought, their image, their idol, as the ancients were wont to call it (*εἰδωλον*) the shell of these persons.

In fact, these occurrences are chiefly observed in places where spiritualistic ideas of one kind or another are prevalent.

* * *

In the Middle Ages a number of curious facts were also observed, and have been transmitted to us by chroniclers and through the prosecutions for witchcraft. Allowing a large margin, as we must of course, for error, exaggeration and the hallucinations due to superstition, there nevertheless remains a goodly number of inexplicable phenomena due to the miserable existence led in those days by all the unfortunate victims of ig-

norance and terrorized fanaticism. This state of physical and moral misery had a powerful influence on the constitution of these degraded beings, and awakened all their more or less latent mediumistic faculties.

There is still an historical fact which cannot be altogether separated from the preceding ones and which, so far, lacks an explanation. It is the touching epopee of the "Maid of Orleans," the heroical Joan of Arc.

We think that since the reader has been over the preceding pages, it is opportune that we condense some of the points and expatiate on others, the theory regarding thought transference, clairvoyance, clairsaudience, which we have outlined in the preceding pages. As for the apparition of phantasms of the living or the dead, etc., we have just given that which we think to be a plausible explanation of this phenomenon.

We have shown man as a globule of the universal intelligence; a ray of the Absolute, momentarily associated with organic matter through the bonds of a special form of Energy. In fact,

we think this theory does not differ sensibly from that of Plato and the Neo-Platonicians. The latter were unable to establish the righteousness of their theory, while we have every reason to believe that a proof will soon be one of the principal achievements of modern science.

If we admit that we are part of the Absolute, we are compelled to accept the hypothesis that it is for a purpose that this fraction is almost completely—though temporarily—isolated from the whole, and that it had to be so for the necessities of animal life on the planet. In this condition where the impersonal becomes personal, the infinite, finite, the sub-being knows but few modalities of the pulsations of universal life; in other words, the undulations of Ether. We perceive some modes of light, heat and electricity which are all forms of energy whose differences are due to the difference in length of the waves or vibrations of Ether, produced by Energy. For we know that the length of these waves varies from a unit to millions, or in other terms, that millions of species of waves ethereal, are in existence. Our sense of perception can only note the effect of a

very small number of them. The inductive method and calculus enable us to conceive the length of waves which may be demonstrated experimentally later on. Therefore, there are millions of waves which determine important phenomena of which we have no conception and for which we have no name any more than we would have for the mountains of a terra incognita (1).

Thought, which is a manifestation of the spirit, is a form of energy, the ethereal waves of which

(1) It is probable that Ether is material, and even more so than any matter that we see in the World. Indeed, it seems proven, from calculations based on the wave-lengths of light, electricity, etc., that its density is far higher than would be all the matter of the stars, if they were volatilized and uniformly spread in their field of space. For instance, if our sun and its planets were "dissolved" in the space allotted for their revolutions, the density of the whole world would be thousands of times lower than that of Hydrogen.

Contrariwise, if, in the same space, the earth, all the other planets and the Sun were condensed in one mass, the latter would present an insignificant volume as compared to the space now occupied by our system. The volume of that mass could be compared to "a grain of dust floating in a space of several hundred cubic miles." (Muller.)

are not normally perceived by our senses, and we must acknowledge that in the present conditions of life this is rather a fortunate disposition. But, through especial modifications, we may perceive the thought-waves of a brain with which we are *en rapport*. This is the only explanation of thought transference or "telepathy" harmonizing with the present data of mathematics and physics on light, electricity, heat, &c.

In certain states, (hypnotic, crystal gazing, ecstasy, clairvoyance, etc.), as previously mentioned, we abmaterialize a part of our higher self. and, in a manner more or less distinct, according to the intensity of exteriorization, we come in relation with that called the Absolute, *i. e.*, with the source of our higher *Ego*. Then it is that we may perceive, under the appearance of images, ideas or new forms of energy, for which we are temporarily receptive: events past, present and future, and indescribable scenes of novel and supra-normal phenomena.

Time, as we now conceive it, ceases to exist. Past and Future are confounded in an eternal Present.

Space, so to speak, is abolished as thought may be present simultaneously on two opposite points of the immensity. In this way, far-distant scenes are described by clairvoyants.

Number appear no longer to be a reality, unless under form of laws which the Absolute permeates as everything else in the Universe. Problems do no longer exist, as their solution is but the future of their present, and is, therefore, seen on the same plane. In our commaterial condition this is demonstrated by the existence of mathematical prodigies who, receiving glimpses of the Absolute, see or "feel" the solution of a problem almost as soon as it has been formulated in their entendement. The problem so readily solved by them, often requires several hours' work from professional calculators. In short, through partial liberation of our higher self, or some mysterious sens, we come *en rapport* with the Absolute. Thus is the vision of a great poet realized (2), a vision received in one of his most beautiful inspirations:

(2) Leconte de l'Isle.

O Mort! Divine Mort où tout rentre et s'efface,
Reçois-nous, tes enfants, dans ton sein étoilé;
Délivre-nous du Temps, du Nombre et de l'Espace
Et rends-nous le repos que la Vie a troublé!

Such is the theory which to us appears more satisfactory than the hypothesis of subliminal consciousness and telepathy.

When a phenomenon of a psychical nature is observed, the custom, at present, is to promptly classify it under the head of telepathy, thus relieving the psychologist from further explanation. This reminds us of a story which Claude Bernard told: When a young man serving an apprenticeship, he was in the employ of an old apothecary of Lyons, who seemed to have curious ideas regarding the exercise of his profession. About once a year he made an inventory of his phials, boxes, pots and drawers. Whenever an unguent or other derelict was found lacking label or other mark of identity, the old man, after a perfunctory nose examination, would say to his apprentice: "Well, put it away, we'll use it for theriaca!" As is well known, theriaca was an electuary composed of sixty-four ingredients. One more or

less! Our apothecary, who, indeed, evinced more than legitimate skepticism in matters pharmaceutical, thought that the proper place for a drug or mixture of doubtful nature was in the mortar where, under his benevolent eyes, *his* theriaca was prepared, *secundum artem*. After his apprenticeship, Claude Bernard relinquished pharmacy and gave free scope to his inborn scientific spirit which was shocked through such practices. Similarly, it seems to us that psychologists are too easily satisfied by the electuary of subliminary consciousness and the theriaca of telepathy where they mix all kinds of psychic ingredients. For instance, if in a séance the medium, through automatic writing or otherwise, receives from the departed a message touching on private matters, the supposition is, that the medium, through telepathic means, read and answered the demands of your mind. Telepathy, they claim, it is nothing more than telepathy! Again, if a hypnotic subject passes through different stages, instead of seeing that these stages are only phases of the same state, *varying according to the subject and the experimenter*, the teachings of the doctrine

are that it must be due to the manifestation of second or third personality which, during the normal state, is deeply hidden in the subliminary theriaca!

According to the views already expressed, the best part of our *self* is engaged in watching the vegetative functions of the body, in keeping, so to say, the cells together. Its rapport with the Absolute is disconnected. The spirit, in its relation to the body, may be compared to a sword: when sheathed nothing is seen of it but the hilt; in drawing it, the upper part of the blade appears thick and blunt, while further down, in portions which were more deeply encased, we find an increasing sharpness which culminates in a fine acerated point!

We have indicated how the spirit, though still united to the body, could, in a measure and under special conditions, enter in relation with the Absolute. Is this relation still more intimate during normal sleep and after the complete divorce between spirit and matter? More intimate, indeed, it must be. But, if we rely upon

our experience, it is not so, immediately after death. Evolution may not cease with this life, but continue hereafter, at least for the "chosen ones," who, becoming more and more intimately related to the Absolute, from whence they came at the beginning of time, continue until they are the Absolute itself.

* * *

A French writer (1) has recently provoked a certain amount of discussion by accusing Science of having disappointed the expectations of the world. He termed it the "Bankruptcy of Science." We do not feel inclined to dispute this opinion, which would be right if Science, that is to say, the human power of research, had stopped its labors. We will only state that the aim of Science (to which we have already alluded) is higher than the scope of vision of any man in particular and we hold the profoundest conviction that Humanity will feel an increase of thankfulness towards her the day on which, speaking with full knowledge, she shall be able to say to

(1) M. Brunetière.

man: "Dying Hermes was right, when, with eyes already dazed by the sight of an Eternity whose veil was falling before him, he spoke these words:

"Until this day I have lived an exile from my true country; I am returning to it; do not weep for me; I am about to reach the celestial dwelling where each one of you will go in turn; there is God. This life is but a death." (2)

(2) Chalcidias, in *Timaeum*.

PART IV.

THE INFLUENCE OF "FUTURE SCIENCE" UPON RELIGION, PHILOSOPHY, SCIENCE, THE ARTS, ETC.,

CHAPTER I.

SUMMARY.—The disturbances and revolutions which the new data of Science are to cause in the various branches of Human Intellectuality.—Perturbation in religious opinions.—Great Pan is dead; long live the Great Pan.—The new religion.—The legend of the stones.—The cycle of religions, or the cycle of religion-science.—Disturbances in the sciences, in Medicine, in Biology.—The arts, and especially literature, are beginning to show the influence of the "Science of To-Morrow."—A synthetical and retrospective glance.—Conduct of the Wise.—The end.

The title of this fourth part is, perhaps, misleading, particularly if the reader expects to find in these pages a complete development of a subject on which an interesting volume might be written. Indeed, one has only to think a moment to form in one's mind a conception of the revolutionary changes that will be determined, in the objects of the intellectual and religious cult of man, by this new branch of Science: Psychism,

which will reveal to us the conditions of the existence of the soul, of the self-conscious intelligence both in commaterial and abmaterial states, before and after death.

As may be understood, it cannot be without giving rise to an immense movement in the various branches of human intellectuality that the facts which we are treating will be studied, as they, perhaps, have never been before, and brought to the knowledge of the public.

Indeed, the dangers exist no longer which necessitated keeping secret all work done in the ancient laboratories. The fire of the stakes has been quenched, and the crowd, though still a crowd, has amended itself, and every day becomes less ignorant and evil. It follows the law of evolution, which, however slow its progression, everything obeys, as History teaches us, notwithstanding its brevity in time and space. We may say also that it is high time to disenthral the most intelligent part of mankind from the anarchistic condition of ideas in which it is now fretting.

We all know by experience that it will not be without discussions that the teachings of

Psychism will be accepted. But, although the oppositions have already been numerous, a change has been wrought, the greater part of the young generation, not having the same reasons for resisting which the older one had, will see these "novelties" without objection, not having yet acquired the prejudices of its predecessors. Moreover, whether we are prejudiced or not, facts are facts and cannot be suppressed.

* * *

At first, let us try to foresee what will occur in the various religious camps which divide the civilized world. It is not difficult to conceive an idea of the disturbance which will ensue when the ancient doctrines are introduced and sanctioned by modern experimental method. Priests, ministers and other spiritual advisers, men honest and of good intent, will break from the ranks of their profession, declaring that their principle and honesty forbade teaching that which they no longer believe. (I.)

(1) That is what has already happened; without speaking of Europe, we may find many examples of it in America.

In time, others (1) will beseech the Pontiff of Rome to "head a movement of reform, in which all the Christian sects would join to organize, on earth, the kingdom of God. The Church, divided from the first, after having been powerless, notwithstanding the help of the secular arm to repress the hundreds of heresies which have torn its bosom, would find its salvation in Science."

For Science will prove, after all, that under various symbols, all esoterisms are alike, and that there is but one religion.

But it is difficult to erect a fine and substantial edifice from the old and burnt timber gathered from ancient ruins. The majority of the ministry will cry out that the Antichrist, so long announced in the Scriptures, has come, and that these inventions of scientists are nothing but manifestations of the infernal power of the Prince of Darkness. Many will remain obdurate to the truth, the simple yet grand and imposing Truth! And in their blindness will cry, "It does not exist . . .!"

(1) Like Abbot Roca, who, by the way, was at once interdicted.

For that race is not yet ready to disappear that would oblige ripened wisdom to walk in swaddling clothes, by imposing to-day on revolted reason, the teachings of centuries that have gone forever! It is, as we wrote elsewhere, very difficult to eradicate from our minds "errors which have been absorbed in the blood with the maternal milk." As the poet tells us:

By education most have been misled.
So we believe because so we were bred.
The priest continues what the nurse began,
And thus the boy imposes on the man.

But the great voice which it is said was heard of yore crying "Great Pan is dead!" shall be heard again in the words that shall resound and be echoed a thousand times from remotest parts of the earth: "Long live the Great Pan!" For a new religion will arise. Its adepts will be recognized, in that they will pronounce "Anathema" against no one, but will urge instead, "Out of our church there would still be salvation, could one get beyond its pale. Our church knows no portals, it is truly universal, and is called the world. It is the Church of Pan, the Church of the Great All!!!"

It will seek to convert no one, but in turn will convince all. As before mentioned, men always end in agreeing upon such things as can be submitted to the evidence of their senses, especially if aided by modern scientific research. This is precisely the method to which it will resort.

It will teach that everything be subjected to the judgment of our reason, and that nothing be accepted without examination. It will forbid people *to believe*, but will advise them to study and inform themselves in order *to know*. It will assign no limit to the acquisition of knowledge, and out of all positivists it will make *progressists*.

It will not say to men, "Love ye one another," but instead, "Love yourself. But learn that you cannot love yourself profitably unless you love others as well and even better than your own self." This may be rendered algebraically through the following aphorism: *Altruism is the true Egoism!*

It will teach that society can have but a troubled and ephemeral life, unless it takes for a model of organization man's body, which itself is made after the image of the world. And thus

will fratricidal wars between members of a nation be ended.

It will teach human societies that they can only have a prosperous and durable existence on condition that they live with other human groups like the members of a happy family, a family happy in itself. And thus the homicidal wars between nations that are but the various limbs of humanity, will be ended.

To those whose hearts are hard, cold and selfishly egotistical, it will prove by $A + B$ that *their own interest* orders them to act as though they were good, for the misery of the poor distills an acrid and virulent gall which filters into the rich man's cup, and even contaminates the veins of his children. (I.)

It will prove that enjoyment cannot exist and that civilization is yet half barbaric, so long as the beggar infests our door and nations require armed protection.

Its councils will have no other creed than the

(1) For an illustration of this affirmation, see a paper, by the author: *Microbes et la Question Sociale*. Revue Scientifique, 1894.

data of the experimental method. Its cult will be the cult of Human Progress towards the non-suffering, and it will gain the whole sublunar world to its fraternal harmony.

On the other hand, it will show the inanity of the efforts of those, who, impatient of enjoying themselves or soured by suffering, resort to violence and crime in order to amend what they term the wrongs of society. (1.) It will appeal to them as well as to those who might fail to see the utility of the temporary union of the spirit with matter, through such symbolical parables as, for instance, the following legend:

“THE LEGEND OF THE STONES.”

There was a time when the most learned men of their era thought that among all beings, man alone was able to feel. Since then the error in which they had fallen has been recognized; but the end had not yet been reached; for matter, the whole of matter, is sentient. Polyzoisism is a true and exact theory; for instance, all bodies, without

(1) The author has already referred to this subject in a paper entitled *The Physician and the Social Question*. North Am. Review, No. IV., 1895.

any exception, are able to feel heat and cold and show it to us . . . The Ether, that is to say life, permeates everything.

Once upon a time when the stones were able to speak, a shapeless and obscure stone was telling its sorrows to another, the burden of which was: "A being who calls himself Lord of Creation takes upon himself the right of striking us, of wounding us with blows from a hard and sharp tool. He breaks us, deprives us of the better part of our own selves and will, I greatly fear, stop only when he shall have completely destroyed us!"

The other answered: "Your misfortunes are nothing as compared to ours. Know then that this barbarous king, this soulless god—man—since we must call him by that hated name, came and tore us from the bosom of the earth, where for time immemorial we were so quietly resting, that we had even lost the memory of our origin. Then he discovered us, and with that same tool of which you complain, tore us from our mother—Earth. And still more, my sister, he now casts us within roaring furnaces in which our blood is carbonized and turns into vapors, and where

our bones, first calcined, then melt under the wind of his infernal breath . . .”

Thus did these two obscure and shapeless stones exhale their complaints upon each other's bosom.

But some time after they again met, united in a diadem which crowned the head of that King whom they had cursed, upon the brow of that god against whom they had been wont to blaspheme. And they found that the one was in the shape of a golden circle that shone brightly, while the other was a diamond from whence issued a thousand rays. And they were admired by all.

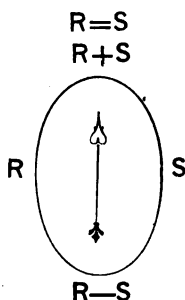
Then said they to one another, somewhat embarrassed: “How mad were we, sister mine, to complain of our fate; instead of the coarse blocks of rough matter that we once were, we have passed through all degrees of refinement, and this day we shine with the brightest light upon the brow of our master, who now unites us in his glory!”

* * *

However, one must not imagine that the new

Science-Religion will "rock human misery to sleep" through the revival of the "old song." On the contrary, it will keep human minds awake to the danger of misery and help to its destruction and its replacing by a satisfactory average of happiness for each human being. And thus will end another cycle, the cycle of religions. At the beginning of human society, as a matter of fact, the rudimentary and fetichistic religion was confounded with man's science, which was of a primitive kind. Later, in the same measure that science has developed, it has moved from religion. But Science advances, and when it reaches its Zenith, it will again be confounded with religion, that is to say, it will be religion itself. (1.) But how different all will then

(1) When lecturing, we have been in the habit of illustrating this by the accompanying diagram:



be: at the start illusion and ignorance; at the apex clear and startling truth.

* * *

After the foregoing considerations must we show what a wrench the rudder-wheel of philosophy will receive under the impulse of this new science? We think not. One may well understand that, aided by the positive acquirements obtained from Psychology, Philosophy will be able to make great strides, for the limitations of knowledge have not yet been reached, and seem, at least for some of us, to be boundless.

We need not insist either on the change which we foresee for Science. New facts, new fields of investigation are now open to Physics, Chemistry and Biology, and many apparently well-established doctrines will yield to more enlightened ones, enlightened by the study of Psychism. As for the influence of Psychism on the arts, it has already been strongly felt, especially on literature.

Medicine, an art which tends to become more and more scientific, will receive an amazing impulse when laboratories are instituted for the pur-

pose of advancing psychical research. For laboratories must be established, whose works and discoveries will bear results, such as, perhaps, none of the actual branches of science are able to give us.

Those who will devote themselves to these studies in a wiselike manner, will win a glorious renown; their names will go down to posterity, and may achieve greater fame than any other name borne by actual scientists.

The nation which shall first encourage the investigations of this science will mark its path in history with a luminous wake.

* * *

If we may cast a rapid glance over some of the views expressed in the preceding chapters we will grasp the idea which guided the author in his "Analysis," whose elements we will now try and bring together in a short synthetic résumé.

As in a swiftly passing vision, the author has first endeavored to give an idea of the Cosmos at the beginning of a Cycle; he tried to show the constitution of the cosmic circle within which a

similar concentrical circle, man, is enclosed as is a nucleus within a cell. Unable to carry too daring a hand within the Macrocosm, he merely chanced a timid comparison between the latter and man, Microcosm, whose nature he has studied with more details and greater possibilities.

He finally endeavored to show that man is composed of an immediately transmutable principle (matter) which is not truly himself, and of a superior principle (intelligence) which is his real *Ego*, and survives the matter to which he is temporarily united, and upon which he acts by means of a third principle (Energy), which is no more his *Ego* than is matter. Hence, when death, which is the separation of these three fundamental principles, takes place, it is accomplished in two primary stages: 1, the intellectual; 2, the animic, to which might be added the material, comprising the complete transformation of matter, if the latter did not, immediately after death, become so indifferent to the spirit.

Let us, while passing, recall the fact that the power of action of Energy is in direct ratio with the complexity, the delicacy, the instability of

combination of matter. Or, contrariwise, the further matter is distant from the mineral state, the more sensitive it is to the influence of Energy. On the other hand, the spirit or mind may act upon Energy when the latter, through a proper adaptation of wave lengths, becomes *animized*, that is to say, when it approaches a state akin to its own.

In other words, life, as we observe it, shows itself at the converging point of three principles. Or, if we prefer: The Spirit has "animized" Energy and organized Matter in order to cause them to act upon each other.

* * *

That which distinguishes the theory sketched in this work from anterior animistic theories, is, that it presents man as a *whole*, composed of a multitude of parts which are semi-autonomous. Each one of the cells of the human body has its matter, (body), its energy (soul) and its rudiment of intelligence (mind or spirit). But they are bound to the destiny of the whole body (Necessity), they have a share of spontaneous-

ness (Will), and reasoning man is interested in the proper accomplishment of their function (Providence). The combined mass of the cells constitutes man, the epitome of the Universe. And it is our opinion that the demonstration of this theory may be obtained through experimental Psychology.

* * *

While writing the concluding lines of these pages, in which the reader may have found some interest, we ask that he will believe that we have been guided by no other motive than that indicated and advocated in this work, viz., true egoism: Through promulgating scientific truth, we benefit our fellow-beings and, thus, develop our *Ego*.

We cannot say whether the theories which we have advanced, and especially those not directly based upon experiment, will ever be verified. But this matters not, if they lead others to do better! In this regard we beg to terminate in taking the reader as confidant of our inner thought:

He who seeks truth for its own sake and for

the commonweal, looks at things from on high. He labors in order to reduce them to their true proportions with regard to the immensity of Time and Space.

He sees the ruin of his theories with indifference, and it is without regret that he makes room for better ones, when he learns that his own cannot lead to the path of truth.

Measuring the value of renown by the trace of good which it leaves behind, he, consequently, does not work for vain glory, for he cannot ignore that even the greatest fame is soon lost—forgotten and nameless—in the Ocean of Time.

And lastly, he feels he knows that he is but one of the solitary cells of that grand collective personality which has been named Humanity, and it is for it that he struggles, and suffers if need be, regardless of reward.

THE END.

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